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# 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/>.

## November 2013

\* 4-5 **DIMACS Workshop on Systems and Analytics of Big Data**, DIMACS Center, CoRE Building, Rutgers University, Piscataway, New Jersey, 08854-8018

**Description:** Tremendous progress has been made in systems and analytics of big data, e.g. Hadoop/MapReduce, STORM. However, modern data analytics faces a confluence of growing challenges. First, the increasing data deluge in social networks, online retails, web pages, mobile data, etc. creates the need to scale out across hundreds of thousands of commodity machines. Second, the complexity of data analytics has also grown to include sophisticated machine learning algorithm with data dependencies. Third, many systems process streaming data and have real time requirements.

We believe that this emerging field will benefit from close interaction among researchers and industry practitioners. To this end, we are planning to organize a DIMACS workshop where we bring together academics and practitioners in computer systems, databases, networking, machine learning, and algorithms to share their research accomplishments and identify core problems on big data.

**Organizers:** Li Erran Li, Bell Labs, [erranli@gmail.com](mailto:erranli@gmail.com); Kathleen R. McKeown, Columbia University, [kathy@cs.columbia.edu](mailto:kathy@cs.columbia.edu). Presented under the auspices of the Special Focus on Information Sharing and Dynamic Data Analysis.

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

\* 7-8 **DIMACS Workshop on Statistical Analysis of Network Dynamics and Interactions**, DIMACS Center, CoRE Building, Rutgers University, Piscataway, New Jersey, 08854-8018

**Description:** The analysis and modeling of large and complex real-world networks has become indispensable across the diverse set of social, technological, and natural worlds. While the field remains heterogeneous and diverse, we have seen emerging signs of convergence. There has been growing computer science and statistical literature expounding on topics of analyzing and visualizing time-varying networks, a subject popularized earlier within the physics community. Social media researchers are beginning to use problem-specific structure to infer between social influence, homophily, and external forces – areas historically of intense interest amongst statisticians and social scientists. Highly complex application domains, such as brain and financial networks, are coming into the scope of the field.

The primary goal of the workshop is to actively promote a concerted effort to address theoretical, methodological and computational issues that arise when modeling and analyzing dynamic networks, stochastic processes on networks, and collection of interactions. To this end, we aim at bringing together researchers from applied disciplines such as sociology, economics, medicine and biology, together with researchers from more theoretical disciplines such as mathematics, statistics, physics and computer science. All these communities have a long-standing interest in modeling large scale networks, and we would like to foster cross-disciplinary collaborations and exchanges in order to identify directions that can provide theoretical and computational foundations to push forward this extremely important field.

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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 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

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/>.

**Organizers:** Edo Airoldi, Harvard University; Andrea Collecchio, University Ca' Foscari- Venice and Monash University; Xiaodong Lin, Rutgers University, [lin@business.rutgers.edu](mailto:lin@business.rutgers.edu). Presented under the auspices of the DIMACS Special Focus on Information Sharing and Dynamic Data Analysis

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

\*9 **Algebra, Geometry and Combinatorics Day (AlGeCom)**, Loyola University Chicago, Chicago, Illinois.

**Description:** A one-day informal meeting of mathematicians from the University of Illinois, Purdue University, IUPUI, and nearby universities, with interests in algebra, geometry and combinatorics (widely interpreted).

**Invited Speakers:** Ryan Kinser (Northeastern), Greg Musiker (Minnesota), Steven Sam (Berkeley), David Speyer (Michigan).

**Funding:** There is limited funding for graduate student attendance, made possible by NSF support.

**Local organizers:** Peter Tingley (email: [ptingley@luc.edu](mailto:ptingley@luc.edu)), Aaron Lauve (email: [alauve@luc.edu](mailto:alauve@luc.edu)).

**Information:** <http://sites.google.com/site/algecomday/algecom9/>.

\*12-16 **GeoLMI 2013—Conference on Geometry and Algebra of Linear Matrix Inequalities**, Centre International de Rencontres Mathématiques (CIRM), Luminy, Marseille, France.

**Description:** This is a conference organized by Didier Henrion and Monique Laurent, jointly with the 3rd official meeting of the GeoLMI project funded by the French National Research Agency. The conference aims at bringing together various researchers in pure and applied mathematics (real algebraic geometry, commutative algebra, functional analysis, continuous and discrete optimization) interested in linear matrix inequalities and their application areas (operations research, system control, performance analysis of dynamical systems).

**Information:** <http://homepages.laas.fr/henrion/geolmi13/>.

\*18-22 **Discrete Curvature: Theory and Applications**, Centre International de Rencontres Mathématiques (CIRM), Luminy, Marseille, France.

**Description:** The aim of this summer school is to bring together researchers from diverse backgrounds on the common problem of discrete curvature and make an update on the many achievements of the last decade. In recent years, new concepts have emerged in different areas of mathematics and computer science, all related to the notion of discrete curvature. The notion of discrete curvature being not uniquely defined, unlike in the case of differential geometry, it is still an open subject of investigation. We believe it is crucial for all contributors in these various fields to meet one another, discuss their views and share their knowledge. The target audience includes both senior researchers who will find a new point of view on issues they know and/or put into perspective their contributions, as well as young researchers and Ph.D. students interested in this growing domain. The speakers will come from academic research, applied research and private companies.

**Information:** <http://www.laurentnajman.org/curvature/>.

## December 2013

\*13-15 **International Conference on Special Functions & their Applications (ICSFA 2013) and symposium on "Applications in Diverse Fields of Engineering and Technology"**, Department of Mathematics, Malviya National Institute of Technology, J.L.N. Marg, Jaipur-302017, Rajasthan, India.

**Description:** The three days conference aims to bring together the researchers working in the area of Special Functions and their Applications for interaction and exchange of ideas. In addition, it will

inspire young researchers to pursue research in this important branch of Mathematical sciences. The Academic program of the conference will consist of Plenary sessions, Invited Talks and Paper Presentations covering a wide range of topics including Special Functions, Ramanujan's Mathematics, Fractional calculus, q-series and continued fractions, complex function theory, Applications of special functions to Statistics, Physical sciences and Engineering. The R. P. Agarwal Memorial Lecture shall be delivered on the first day of the conference by an eminent mathematician. In previous years it is been delivered by Prof. George Andrews (Pennsylvania), Prof. Bruce Berndt (Illinois), Prof. H.L. Manocha (NY).

**Information:** <http://www.ssfaindia.webs.com/conf.htm>.

## January 2014

\*25-30 **From Random Walks to Lévy Processes**, Australian National University, Kioloa, Australia.

**Location:** The conference will be held at the Kioloa campus on the NSW coast.

**Description:** The aim of the conference is to provide a unique opportunity for Australian researchers, practitioners, and students to hear, meet, and mingle with some of the most prominent international and Australian researchers currently working on random walks, Lévy processes, or closely related areas. The ANU Kioloa Campus on the NSW coast provides a sequestered gathering place in a beautifully located environment with full accommodation and conference facilities permitting close networking and interaction among participants.

**Information:** <http://maths.anu.edu.au/events/kioloa-conference-random-walks-levy-processes>.

## February 2014

\*17-21 **Hot Topics: Perfectoid Spaces and their Applications**, Mathematical Sciences Research Institute, Berkeley, California.

**Description:** Since their introduction just two years ago, perfectoid spaces have played a crucial role in a number of striking advances in arithmetic algebraic geometry: The proof of Deligne's weight-monodromy conjecture for complete intersections in toric varieties; the development of p-adic Hodge theory for rigid analytic spaces; a p-adic analogue of Riemann's classification of abelian varieties over the complex numbers; and the construction of Galois representations for torsion classes in the cohomology of many locally symmetric spaces (for instance arithmetic hyperbolic 3-manifolds). We will start the week with an exposition of the foundations of the theory of perfectoid spaces, with the aim of teaching novices to work with them. Then we will discuss their current and potential applications.

**Information:** <http://www.msri.org/workshops/731>.

## March 2014

\*14-28 **Representation Theory and Geometry of Reductive Groups**, Kloster Heiligkreuztal, a Monastery in Germany, Altheim, Germany.

**Description:** A 10-day spring school followed by a 3-day conference organized by Bernhard Krötz and Eric M. Opdam. The lecturers are: Michel Brion, Dan Ciubotaru, Friedrich Knop, Mark Reeder and Henrik Schlichtkrull.

**Information:** <http://www2.math.uni-paderborn.de/konferenzen/conferencespring-school.html>.

\*28-30 **38th Annual SIAM Southeastern Atlantic Section (SEAS) Conference**, Florida Institute of Technology, Melbourne, Florida.

**Description:** Conference web page is <http://my.fit.edu/abdulla/SIAMSEAS-2014>. The meeting will contain plenary lectures, minisymposia, contributed, and poster sessions.

**Plenary speakers:** Louis Block, University of Florida; Emmanuele DiBenedetto, Vanderbilt University; Joel Smoller, University of Michigan; and Gunther Uhlmann, University of Washington and University of Helsinki. The minisymposium Proposal Submission deadline is January 10, 2014. We look forward to meeting you all in Melbourne, Florida next year. Regards, Ugur G. Abdulla ([abdulla@fit.edu](mailto:abdulla@fit.edu)).

**Information:** <http://my.fit.edu/~abdulla/SIAMSEAS-2014>.

#### April 2014

\* 3–4 **13th New Mexico Analysis Seminar**, University of New Mexico, Albuquerque, New Mexico.

**Description:** The New Mexico Analysis Seminar is organized by analysts at New Mexico State University and The University of New Mexico. The goal of the conference is to provide an opportunity for scientific exchange and cooperation among broadly defined analysts. This year the center piece of the seminar is a minicourse given by the keynote speaker Sasha Volberg from Michigan State University on “Harmonic Analysis and Spectral Theory”.

**Information:** <http://www.math.unm.edu/conferences/13thAnalysis/>.

\* 4 **An Afternoon in Honor to Cora Sadosky**, University of New Mexico, Albuquerque, New Mexico.

**Description:** Cora Sadosky (1940-2010) was an expert in harmonic analysis and operator theory, a student of Alberto Calderón and Antony Zygmund. She was a strong advocate for women in mathematics as well as active in promoting the greater participation of African-Americans in mathematics. She was president of the Association for Women in Mathematics (AWM) from 1993 to 1995, among other public offices she held during her life. This afternoon will be devoted to current results in harmonic analysis, operator theory and PDEs related to the mathematics of Cora Sadosky.

**Invited speakers:** Svitlana Mayboroda (University of Minnesota and first recipient of the AWM-Sadosky Award), Jill Pipher (Brown University), Sergei Treil (Brown University), Sasha Volberg (Michigan State University).

**Information:** <http://www.math.unm.edu/conferences/13thAnalysis/>.

#### May 2014

\* 1–30 **Self-normalized Asymptotic Theory in Probability, Statistics and Econometrics**, Institute for Mathematical Sciences, National University of Singapore, Singapore.

**Description:** This program will provide the probabilists, statisticians and econometricians a unique platform to discuss interesting fundamental problems and results and explore possible solutions related to asymptotic theory. It is also intended to bring young researchers to the frontier of this fascinating area. Research and Informal Discussions: May 5–9, 2014 and May 26–30, 2014. Tutorial on Introduction to Self-normalized Limit Theory: May 13–16, 2014. Tutorial on Introductory Econometrics: May 13–16, 2014. Workshop on Self-normalized Asymptotic Theory in Probability, Statistics and Econometrics: May 19–23, May 2014.

**Information:** <http://www2.ims.nus.edu.sg/Programs/014self/index.php>.

\* 5–9 **AIM Workshop: Projective modules and A1-homotopy theory**, American Institute of Mathematics, Palo Alto, California.

**Description:** This workshop, sponsored by AIM and the NSF, will be devoted to studying recent interactions between the classical theory of projective modules and A1-homotopy theory.

**Information:** <http://www.aimath.org/ARCC/workshops/projectiveA1.html>.

\* 19 **Bers 100 celebration**, City University of New York, Graduate Center New York, New York.

**Description:** This one day informal event to celebrate the mathematics and life of Lipman Bers, on the 100th anniversary of his birth, is currently in the planning stage. There will be two speakers: Dennis Sullivan and Yair Minsky and a social calendar. Contact Irwin Kra for more information.

**Information:** <http://fsw01.bcc.cuny.edu/zhe.wang/IB.html>.

\* 20–22 **Sixth Iberoamerican congress on geometry**, City University of New York, Graduate Center New York, New York.

**Description:** There will be nine plenary speakers and five special sessions. For more information contact Ara Basmajian.

**Information:** <http://fsw01.bcc.cuny.edu/zhe.wang/IB.html>.

\* 27–30 **International Conference on Nonlinear Differential and Difference Equations: Recent Developments and Applications**, Side, Antalya, Turkey.

**Description:** The main aim of the conference is to promote, encourage, and bring together researchers in the fields of ordinary differential equations, functional differential equations, difference equations, impulsive differential equations, fractional differential equations and applications.

**Information:** <http://icndde.ankara.edu.tr>.

#### June 2014

\* 2–6 **Computational Nonlinear Algebra**, Institute for Computational and Experimental Research in Mathematics, (ICERM), Brown University, Providence, Rhode Island.

**Description:** Over the last two decades, algebraic and numerical techniques for nonlinear problems have begun a steady and relentless transition from mostly academic constructions, to widely used tools across the mathematical sciences, engineering and industrial applications. The workshop will bring together participants from many diverse fields including computer vision, cryptography, optimization and control, partial differential equations, robotics, and quantum computation, with the common interest in nonlinear algebraic computations. The main goal is to assess the state of the art, to stimulate further progress, and to accelerate developments by bringing together these diverse communities and have them share computational challenges and successes.

**Information:** <http://icerm.brown.edu/tw-14-3-cna>.

\* 10–13 **Geometry of Banach Spaces - A conference in honor of Stanimir Troyanski**, Albacete, Spain.

**Description:** The conference will be held in Albacete (Spain) on June 10–13, 2014, on the occasion of the 70th birthday of Professor Troyanski. We hope the conference to be a meeting point of researchers interested in Banach space theory.

Main speakers who already accepted our invitation are: S. Argyros, J. Castillo, S. Dilworth, M. Fabian, V. Fonf, G. Godefroy, P. Hajek, R. Haydon, F. Hernandez, P. Kenderov, P. Koszmider, D. Kutzarova, A. Molto, T. Schlumprecht, R. Smith, A. Suarez Granero. Participants will have the opportunity to deliver a short talk.

**Organizers:** A. Aviles, S. Lajara, J.P. Moreno, J. Rodriguez.

**Information:** email: [geometry.banach.spaces.2014@gmail.com](mailto:geometry.banach.spaces.2014@gmail.com); <http://sites.google.com/site/geometryofbanachspaces/>.

\* 15–20 **4th European Seminar on Computing (ESCO 2014)**, Pilsen, Czech Republic.

**Description:** ESCO 2014 is the 4th event in a successful series of interdisciplinary international conferences. It promotes modern technologies and practices in scientific computing and visualization, and strengthens the interaction between researchers and practitioners in various areas of computational engineering and sciences. Thematic areas of ESCO 2014: Multiphysics coupled problems, higher-order computational methods, GPU computing and cloud computing, computing with Python and Octave, open source projects in scientific computing.

**Invited keynote speakers:** Oszkar Biro (Institut für Grundlagen und Theorie der Elektrotechnik, Graz, Austria), Herbert Edelsbrunner (Institute of Science and Technology, Vienna, Austria), Jean-Frédéric Gerbeau (INRIA, Paris-Rocquencourt, France), Stanley Osher (UCLA, Los Angeles, USA-pending), Ulrich Rüde (University Erlangen-Nuremberg, Erlangen, Germany).

**Information:** <http://esco2014.femhub.com>.

\* 16–27 **Summer Graduate School: Dispersive Partial Differential Equations**, Mathematical Sciences Research Institute, Berkeley, California.

**Description:** The purpose of the workshop is to introduce graduate students to the recent developments in the area of dispersive partial differential equations (PDE). Dispersive equations have received a great deal of attention from mathematicians because of their applications to nonlinear optics, water wave theory and plasma physics. We will outline the basic tools of the theory that were developed with the help of multi-linear Harmonic Analysis techniques. The exposition will be as self-contained as possible.

**Information:** [http://www.msri.org/summer\\_schools/713](http://www.msri.org/summer_schools/713).

\* 21–August 3 **MSRI-UP 2014: Arithmetic Aspects of Elementary Functions**, Mathematical Sciences Research Institute, Berkeley, California.

**Description:** The MSRI Undergraduate Program (MSRI-UP) is a comprehensive summer program designed for undergraduate students who have completed two years of university-level mathematics courses and would like to conduct research in the mathematical sciences. The main objective of the MSRI-UP is to identify talented students, especially those from underrepresented groups, who are interested in mathematics and make available to them meaningful research opportunities, the necessary skills and knowledge to participate in successful collaborations, and a community of academic peers and mentors who can advise, encourage and support them through a successful graduate program. The academic and research portion of the 2014 MSRI-UP will be led by Professor Victor Moll from Tulane University.

**Information:** [http://www.msri.org/msri\\_ups/735](http://www.msri.org/msri_ups/735).

\* 23–27 **Boltzmann, Vlasov and related equations: Last results and open problems**, University of Cartagena, Cartagena, Colombia.

**Description:** The kinetic theory is one of the areas of active scientific research today, theoretical wealth and the many applications in various areas of science and technology as well as important phenomena unifying power microscopic and macroscopic world. Studying of Boltzmann and Vlasov equations play a central role in the kinetic theory. For this reason, June 23–27, 2014, will be celebrating in the city of Cartagena de Indias, Colombia, an International Conference, about Boltzmann, Vlasov and related equations, which will address recent results by leading international experts and current open problems. We invite mathematicians, physicists, chemists, biologists, engineers and young scientists to this beautiful city.

**Information:** <http://matematicas.unicartagena.edu.co>.

### July 2014

\* 7–18 **Summer Graduate School: Stochastic Partial Differential Equations**, Mathematical Sciences Research Institute, Berkeley, California.

**Description:** Stochastic Partial Differential Equations (SPDEs) serve as fundamental models of physical systems subject to random inputs, interactions or environments. It is a particular challenge to develop tools to construct solutions, prove robustness of approximation schemes, and study properties like ergodicity and fluctuation statistics for a wide variety of SPDEs. The purpose of this two week workshop is to educate graduate students on the state-of-the-art methods and results in SPDEs. The three courses which will be run simultaneously will highlight different (though related) aspects of this area including (1) Fluctuation theory of PDEs with random coefficients (2) Ergodic theory of SPDEs and (3) Exact solvability of SPDEs.

**Information:** [http://www.msri.org/summer\\_schools/714](http://www.msri.org/summer_schools/714).

\* 7–August 29 **The Geometry, Topology and Physics of Moduli Spaces of Higgs Bundles**, Institute for Mathematical Sciences, National University of Singapore, Singapore.

**Description:** The goals of the program are: Bring together experts who study the geometry, topology and physics of Higgs bundles. Invite leading researchers to give talks on recent results and the latest developments in the field. Have experts give mini-courses explaining the background to their fields. Encourage collaborative work. Introduce graduate students and young researchers to the latest research and open problems in the field.

**Information:** <http://www2.ims.nus.edu.sg/Programs/014geometry/index.php>.

\* 28–August 8 **Summer Graduate School: Geometry and Analysis**, Mathematical Sciences Research Institute, Berkeley, California.

**Description:** Geometric and complex analysis is the application of tools from analysis to study questions from geometry and topology. This two week summer course will provide graduate students with the necessary background to begin studies in the area. The first week will consist of introductory courses on geometric analysis, complex analysis, and Riemann surfaces. The second week will consist of more advanced courses on the regularity theory of Einstein manifolds, Kahler-Einstein manifolds, and the analysis of Riemann surfaces.

**Information:** [http://www.msri.org/summer\\_schools/712](http://www.msri.org/summer_schools/712).

### September 2014

\* 1–December 19 **Trimester Program on Non-commutative Geometry and its Applications**, Hausdorff Research Institute for Mathematics, Bonn, Germany.

**Description:** There will be four workshops during the trimester, a series of lecture courses aimed at postgraduate students and post-doctoral level researchers, and also a weekly seminar series on current research topics and a working seminar within that part of the program aimed at junior researchers.

**Information:** <http://www.him.uni-bonn.de/programs/future-programs/future-trimester-programs/non-commutative-geometry-2014/description/>.

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**The following new announcements will not be repeated until the criteria in the next to the last paragraph at the bottom of the first page of this section are met.**

### May 2015

\* 17–21 **SIAM Conference on Applications of Dynamical Systems (DS15)**, Snowbird Ski and Summer Resort, Snowbird, Utah.

**Description:** The application of dynamical systems theory to areas outside of mathematics continues to be a vibrant, exciting and fruitful endeavor. These application areas are diverse and multidisciplinary, ranging over all areas of applied science and engineering, including biology, chemistry, physics, finance, and industrial applied mathematics. This conference strives to achieve a blend of application-oriented material and the mathematics that informs and supports it. The goals of the meeting are a cross-fertilization of ideas from different application areas, and increased communication between the mathematicians who develop dynamical systems techniques and applied scientists who use them.

**Information:** <http://www.siam.org/meetings/ds15/>.