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# Mathematics Calendar

Please submit conference information for the Mathematics Calendar through the Mathematics Calendar submission form at [www.ams.org/cgi-bin/mathcal-submit.pl](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 [www.ams.org/mathcal/](http://www.ams.org/mathcal/).

## May 2015

\* 7–10 **Workshop on Representation Theory and Analysis on Lie Groups over Local Fields**, Department of Mathematics and Statistics, University of Ottawa, Ottawa, Canada.

**Description:** The primary focus of this workshop is on recent advances in the representation theory of real and p-adic groups and their applications. In particular, one of the areas in which substantial progress has been achieved is the harmonic analysis on homogeneous varieties. Within the past five years, there have been major breakthroughs in analysis on spherical varieties in the following two directions.

**Organizers:** Monica Nevins and Hadi Salmasian (University of Ottawa)

**Registration and travel funding application:** For students and PDF: Registration will be on-line to April 28, 2015 and on-site May 7, 2015.

**Deadline:** To apply for travel support: February 28, 2015. For students and PDF that are requesting funding, if you are interested in giving a talk, please submit your tentative title and/or abstract here. Deadline to submit is January 31, 2015

**Information:**

[www.fields.utoronto.ca/programs/scientific/14-15/localfields/](http://www.fields.utoronto.ca/programs/scientific/14-15/localfields/).

\* 11–12 **Conference on Representation Theory and Related Topics**, University of Connecticut, Storrs, Connecticut.

**Description:** The conference will cover various topics of representation theory. Limited travel funds are available. Graduate students, postdoctoral researchers, and underrepresented minorities are encouraged to apply and contact Kyu-Hwan Lee ([khlee@math.uconn.edu](mailto:khlee@math.uconn.edu)).

**Information:** [www.math.uconn.edu/~khlee/Conferences/storrs\\_15.html](http://www.math.uconn.edu/~khlee/Conferences/storrs_15.html).

\* 11–15 **Averaging and Homogenization in Deterministic and Stochastic Systems**, CIRM, Marseille Luminy, France.

**Description:** This conference deals with the interactions between arithmetics, algebraic geometry and computer sciences, in particular coding theory and cryptology. The research themes of this particular meeting are : number theory, asymptotics of global fields, arithmetic Geometry, algebraic curves over finite fields or number fields, abelian varieties, theoretical and algorithmic aspects of point counting, coding theory, algebraic and algebraic geometry codes, codes from curves and higher dimensional varieties, decoding algorithms and Boolean functions, bent and APN functions, constructions of families of bent and hyperbent functions.

**Information:** [scientific-events.weebly.com/1193.html](http://scientific-events.weebly.com/1193.html).

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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: [www.ams.org/](http://www.ams.org/).

\* 16–17 **GSCAGT - Graduate Student Conference in Algebra, Geometry, and Topology**, Temple University, Philadelphia, Pennsylvania.  
**Description:** This conference aims to expose graduate students in algebra, geometry and topology to current research, and provide them with an opportunity to present and discuss their own research. It also intends to provide a forum for graduate students to engage with each other as well as expert faculty members in their areas of research. Most of the talks at the conference will be given by graduate students, with four given by the following keynote speakers: Chelsea Walton (MIT), Julie Bernger (UC Riverside), Jessica Purcell (Brigham Young), Daniel Wise (McGill).

**Information:** [math.temple.edu/events/gscagt/](http://math.temple.edu/events/gscagt/).

\* 16–19 **International Workshop on Quantitative Properties of Groups and Related Topics**, Chongqing University of Arts and Sciences, Chongqing, China.

**Description:** The aim of this workshop is to provide an overview of different aspects on quantitative properties of groups and related topics, including its applications. It is addressed both to postgraduate students and researchers in these areas of group theory.

**Confirmed Invited Speakers (Non-Chinese):** Marston Conder (New Zealand), Maria Grechkoseeva (Russia), Kanta Gupta (Canada), Thomas Keller (USA), Goansu Kim (South Korea), Anatoly Kondratiev (Russia), Daria Lytkina (Russia), Victor Mazurov (Russia), Ali Reaz Moghaddamfar (Iran), Danila Revin (Russia), Andrey Vasilyev (Russia), Yong Yang (USA).

**Contact:** Professor Wujie Shi (Chair); [wjshi@suda.edu.cn](mailto:wjshi@suda.edu.cn).

**Information:** [www.iwqpg.org](http://www.iwqpg.org).

\* 18–22 **The 9th “International Conference on Topological Algebras and their Applications” (ICTAA-2015)**, Holon Institute of Technology- HIT, Golomb Street 52, Holon 5810201, Israel.

**Description:** This conference is the ninth in the series of international conferences on Topological Algebras and their Applications. The previous conferences were held at Tartu (1999), Rabat (2000), Oulu (2001), Oaxaca (2002), Athens (2005), Tartu (2008), Tartu (2013) and Playa de Villas de Mar Beach in the Dominican Republic (2014).

**Topics:** The topics of the conference include all areas of mathematics, connected with (preferably general) topological algebras and their applications, including all kinds of topological-algebraic structures as topological linear spaces, topological rings, topological modules, topological groups and semigroups; bornological-algebraic structures such as bornological linear spaces, bornological algebras, bornological groups, bornological rings and modules; algebraic and topological K-theory; topological module bundles, sheaves and others. The objective of the present conference is to bring together experts and young researchers on these fields of mathematics.

\* 19–22 **Workshop - Magnetic fields and semi-classical analysis**, Henri Lebesgue Center, Rennes, France.

**Description:** The aim of this workshop on “Magnetic fields and semi-classical analysis” is to present the latest advances, and their applications, in the study of partial differential equations with magnetic fields and semiclassical analysis. This will allow for the interaction between different research communities and stimulate new investigations on a large spectrum of recent problems, from superconductivity theory to Maxwell equation, via spectral theory and dynamics for the Schrödinger equation, and their geometric aspects.

**Information:** [www.lebesgue.fr/content/sem2015-magnetic](http://www.lebesgue.fr/content/sem2015-magnetic).

\* 25–29 **Automorphic Forms: Advances and Applications**, CIRM, Marseille Luminy, France.

**Description:** The theory of automorphic forms is a rich research area with deep connections to many different fields of mathematics and physics. World class researchers with expertise on automorphic forms will meet with the goal to advance the theory of automorphic forms and to shed light on several open problems. A strong emphasis will be on real-analytic automorphic forms and their role in combinatorics, mathematical physics and representation theory. The conference will concentrate on topics such as Harmonic weak Maass forms, harmonic Maass-Jacobi forms, mock modular forms, umbral moonshine, Nahm’s conjecture, quantum black holes, partitions and  $q$ -series and asymptotics.

**Information:** [scientific-events.weebly.com/1108.html](http://scientific-events.weebly.com/1108.html).

\* 25–29 **Rational Points (Thematic Program on Algebraic Geometry)**, IMPA (Instituto Nacional de Matemática Pura e Aplicada), Rio de Janeiro, Brazil.

**Description:** Workshop on rational points on algebraic varieties as part of the thematic program on algebraic geometry at IMPA, Rio de Janeiro, Brazil. There will be two mini-courses offered: “Diagonal arithmetics” by Alena Pirutka (École polytechnique), and “Rational points on rationally connected varieties over number fields” by Oliver Wittenberg (École normale supérieure).

**Lectures:** Martin Bright (Leiden), Cyril Demarche (Paris VI), Ulrich Derenthal (Hanover), Rachel Newton (Max Planck Institute), R. Parimala (Emory), Alexei Skorobogatov (Imperial College), Ronald van Luijk (Leiden), and Jose Felipe Voloch (Texas). Some local funding is available for junior participants. For details, check the main web-site of the IMPA thematic program: [alg-geo.impa.br/](http://alg-geo.impa.br/).

**Information:** [www.impa.br/opencms/en/eventos/store/evento\\_1509](http://www.impa.br/opencms/en/eventos/store/evento_1509).

\* 28–31 **Workshop on Ricci Curvature**, Northwestern University, Evanston, Illinois.

**Description:** This Workshop on Ricci Curvature will bring together experts in various areas of research under a common theme of Ricci curvature.

**Invited speakers:** Richard Bamler (Berkeley); Albert Chau (UBC); Jeff Cheeger (NYU); Robert Haslhofer (NYU); Hans-Joachim Hein (Maryland); Chi Li (Stony Brook); Gang Liu (Berkeley); John Lott (Berkeley); Duong H. Phong (Columbia); Yanir Rubinstein (Maryland); Natasa Sesum (Rutgers); Christina Sormani (CUNY); Song Sun (Stony Brook); Gábor Székelyhidi (Notre Dame); Jeff Viaclovsky (Wisconsin); Bing Wang (Wisconsin); Mu-Tao Wang (Columbia); Guofang Wei (UCSB); Xiaokui Yang (Northwestern); Ruobing Zhang (Princeton).

**Information:** [math.northwestern.edu/emphasisGA/ricci/](http://math.northwestern.edu/emphasisGA/ricci/).

## June 2015

\* 1–5 **Moduli Spaces in Symplectic Topology and in Gauge Theory**, CIRM, Marseille Luminy, France.

**Description:** This workshop will focus on the topic of Analytic foundations and applications to dynamics, in particular analytical foundations of symplectic field theory; closed orbits of Hamiltonian flows, symplectic dynamics and Seiberg-Witten Floer homology and mean curvature flows for Lagrangian submanifolds. It will also deal with the topic of Algebraic structures and ramifications, with specific focus on further algebraic structures; on enumerative invariants for Lagrangian submanifolds and on ramifications.

**Information:**

[lalondeteleman.weebly.com/main-conference.html](http://lalondeteleman.weebly.com/main-conference.html).

\* 1–5 **Nordic Summer School in Algebra and Geometry**, The Sven Loven Centre for Marine Sciences of the University, Gothenburg, Sweden.

**Description:** The purpose of the Summer School is to get graduate students and young researchers in algebra and geometry in the

Nordic countries, to meet and to broaden their algebraic/geometric horizons through courses in diverse fields of algebra and geometry. In addition there will be possibilities for the participants to present their own research. The afternoons will be devoted to projects and research, with opportunities to discuss with fellow graduate students and professors.

**Information:** [loven.gu.se/english](http://loven.gu.se/english).

\* 1-5 **Representation Theory, Number Theory and Invariant Theory**, Yale University, New Haven, Connecticut.

**Description:** The conference will overview the role of representation theory in various disciplines such as automorphic forms, harmonic analysis, and invariant theory developed over the past half a century, present recent progress in this field, and finally aim to extrapolate it into future. The main topics include automorphic forms, invariant theory, representation theory of reductive groups over local fields and related subjects. Professor Howe's work and insights have been influential in the development of these fields of mathematics and the conference will be an occasion to celebrate his 70th birthday. Please forward this information to others, especially to graduate students or recent PhDs. Thanks to generous funding from NSF and the Number Theory foundation, we are offering some financial support.

**Organizers:** James Cogdell, Ju-Lee Kim, David Manderscheid, Gregory Margulis, Jian-Shu Li, Cheng-Bo Zhu, Gregg Zuckerman.

**Registration:** Opened in December of 2014.

**Information:** [math.mit.edu/conferences/howe/](http://math.mit.edu/conferences/howe/).

\* 2-5 **Frontiers of singular integrals**, University of Helsinki, Helsinki, Finland.

**Description:** The aim of the workshop is to exchange some latest ideas in the analysis of singular integrals and allied topics, the "frontiers" understood as bordering both the limits of existing knowledge and other areas of mathematics.

**Information:** [wiki.helsinki.fi/display/HAWorkshop2015/](http://wiki.helsinki.fi/display/HAWorkshop2015/).

\* 8-12 **Real Analytic Geometry and Trajectories of Vector Fields**, CIRM, Marseille Luminy, France.

**Description:** In recent years, substantial progress has been made in understanding the qualitative properties of trajectories of real analytic (and more general) vector fields by a large variety of geometric methods, such as: resolution of singularities, classification of real analytic function germs, stratifications and conormal geometry, gradient flow, ridge and valley lines, semi-algebraic and o-minimal geometry, and also by more analytic approaches such as: quasi-analytic classes, (pseudo)abelian integrals, formal series and asymptotic analysis, non-linear analysis, resurgent methods and resummation processes. The main goal of this meeting is to reunite experts coming from different approaches and the young researchers from our ANR project as well as meet with others from outside this project.

**Information:** [scientific-events.weebly.com/1220.html](http://scientific-events.weebly.com/1220.html).

\* 9-11 **Elementary, analytic, and algorithmic number theory: Research inspired by the mathematics of Carl Pomerance**, University of Georgia, Athens, Georgia.

**Description:** In honor of Carl Pomerance's 70th birthday. There will be a pre-conference workshop aimed at young mathematicians whose research fits within the scope of the conference. It will feature talks by current and recent Ph.D. students, in addition to career advice and social events. The workshop will be a full-day event and it will take place on Monday, June 8th. All conference participants are invited to attend.

**Information:** [alpha.math.uga.edu/~cp70/CP70/Home.html](http://alpha.math.uga.edu/~cp70/CP70/Home.html).

\* 10 **2015 PIMS Marsden Memorial Lecture**, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland.

**Description:** Yann Brenier (École Polytechnique, Paris) will give a

lecture entitled: From Euler to Born-Infeld, Fluids and Electromagnetism. -The Marsden Memorial Lecture Series is dedicated to the memory of Jerrold E Marsden (1942-2010), a world-renowned Canadian applied mathematician.-

**Information:**

[www.pims.math.ca/scientific-event/150610-pmmllyb](http://www.pims.math.ca/scientific-event/150610-pmmllyb).

\* 10-12 **IMA International Conference on Barriers and Enablers to Learning Maths**, University of Glasgow, Glasgow, Scotland.

**Description:** This is the first international conference of the Institute of Mathematics and its Applications (IMA) about approaches to teaching and learning mathematics. Mathematics should be understood in the widest possible sense to cover all aspects of mathematics, including number, pure mathematics, applied mathematics, statistics and the full range of applications of mathematics. The conference examines learning and teaching throughout the life span, from the most basic to the most advanced topics and for the full range of learners, including people with dyscalculia and other maths learning difficulties, gifted learners and mathematicians. This should lead to cross-fertilisation between different areas of learning and teaching. The conference is also highly interdisciplinary. In addition to mathematicians, it should be of interest amongst others to psychologists, teachers, pedagogical and educational experts, engineers, scientists and social scientists.

**Information:**

[www.ima.org.uk/conferences/conferences\\_calendar/barriers\\_and\\_enablers\\_to\\_learning\\_maths.cfm.html](http://www.ima.org.uk/conferences/conferences_calendar/barriers_and_enablers_to_learning_maths.cfm.html).

\* 10-12 **Western International Workshop on Harmonic Analysis and PDE**, University of British Columbia, Vancouver, BC, V6T 1Z4, Canada.

**Description:** The purpose of this workshop is to promote the communication and interaction, mainly on the western part of the continent, of researchers at all levels in the area of Harmonic Analysis, Partial Differential Equations, Geometric Measure Theory and their applications. The workshop will gather senior researchers, postdoctoral fellows and related collaborators, and graduate students mainly from universities in western Canada and USA. The great distances between the higher education institutions in this region result in less frequent interchanges and not very fluid dialogue among experts with common interests. A minicourse will be offered by Eric T. Sawyer. Senior participants will present short talks about their research. There will be networking time allocated for participants.

**Organizers:** Cristian Rios, University of Calgary; Malabika Pramanik, University of British Columbia; Tatiana Toro, University of Washington.

**Information:**

[www.pims.math.ca/scientific-event/150610-wiwhap](http://www.pims.math.ca/scientific-event/150610-wiwhap).

\* 13-14 **International Conference on Computer Science, Engineering and Innovations (ICCSEI 2015)**, Strand Palace Hotel London, 372 Strand, London, England.

**Description:** This is a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Computer Engineering and Technology.

**Information:** [www.iccsei.com](http://www.iccsei.com).

\* 15-19 **Probability and Biological Evolution**, CIRM, Marseille Luminy, France.

**Description:** The overarching goal of the conference is to reflect the current methodological and conceptual advances in the study of stochastic processes used in modeling for ecology, population

genetics and evolution. This is intended to stimulate the development of cutting-edge stochastic models that will promote a better understanding of evolutionary processes at various scales, ranging from genes to populations, communities and ecosystems. The main mathematical problems to be addressed can be described by the interrelated topics: Large-scale behavior and rare events in population dynamic; Trees, coalescents and historical processes; Generalized branching processes; Spatial models in ecology and population genetics and Random networks in epidemiology.

**Information:** [scientific-events.weebly.com/1112.html](http://scientific-events.weebly.com/1112.html).

\* 17-18 **International Conference on High Performance Computing and Emerging Technology (ICHPET 2015)**, Strand Palace Hotel London, 372 Strand, London, England.

**Description:** The theme of this conference is to promote the state of the art in scientific and practical research of the High Performance Computing and Big Data. It provides a forum for bringing together researchers and practitioners from academia, industry, and public sector in an effort to present their research work and share research and development ideas in the area of Big Data and computing.

**Information:** [www.ichpet.com](http://www.ichpet.com).

\* 22-26 **Arithmetic Geometry, Representation Theory and Applications**, CIRM, Marseille Luminy, France.

**Description:** This conference, that will punctuate the end of the ANR program on p-adic Hodge theory and beyond (ThéHopad), aims to give an overview of some of the most striking results in arithmetic geometry with an emphasis on p-adic aspects.

**Topics:** The following topics will be the main focus of the meeting: p-adic Hodge theory and beyond; Shimura varieties; Galois representations and Ramification theory.

**Information:** [scientific-events.weebly.com/1185.html](http://scientific-events.weebly.com/1185.html)

\* 22-28 **Intuitive Geometry—László Fejes Tóth Centennial (LFT100)**, Budapest, Hungary.

**Description:** To commemorate the 100th anniversary of the birth of László Fejes Tóth, the Alfréd Rényi Institute of Mathematics, the Central European University and the János Bolyai Mathematical Society are organizing an international conference and workshop devoted to László Fejes Tóth's main areas of interest.

**Topics:** Discrete and combinatorial geometry, convex geometry and general convexity, the theory of packing, covering and tiling, computational geometry, rigidity theory, the geometry of numbers, crystallography and classical differential geometry.

**Information:** [renyi.hu/conferences/lft100/](http://renyi.hu/conferences/lft100/).

\* 29-July 3 **School of Biology for Students in Mathematics and Informatics**, CIRM, Marseille Luminy, France.

**Description:** The Summer school of Biology in Luminy has been organized since 2002 and held at CIRM since 2008. The participants are primarily students in mathematics and computer scientists, but also physicists or engineers, for whom this intensive school provides minimal training in biology so they may be able to work at the interface between biology and their own discipline. For students in their fourth year or above.

**Information:** [scientific-events.weebly.com/1470.html](http://scientific-events.weebly.com/1470.html).

\* 29-July 3 **School and Workshop on Group Representations in Dynamical Systems and Geometry**, CIRM, Marseille Luminy, France.

**Description:** The scope of this conference is to build on the knowledge of the deep relations existing between Representation Theory, Ergodic Theory and Dynamical Systems and to expand in related areas of research that came recently to prominence in the worldwide mathematical scenery.

**Main topics:** Representation theory of the infinite symmetric group- asymptotic formulas and connections with probability; Finite dimensional representations of finitely generated groups- including combinatorial theory of association schemes and coding theory; Growth functions and representation theory in low dimensional geometry and Topology.

**Information:** [scientific-events.weebly.com/1234.html](http://scientific-events.weebly.com/1234.html).

\* 29-July 10 **PIMS Symposium on the Geometry and Topology of Manifolds**, University of British Columbia, Vancouver, BC, Canada.

**Description:** The objective will be to bring together mathematicians working on a broad range of topics in this area, and provide an opportunity for researchers and graduate students to learn about new connections. The program will include a combination of expository and research talks, as well as time for informal contacts and exchanges of ideas. See the conference webpage for information about the program, speakers and registration.

**Information:**

[www.pims.math.ca/scientific-event/150629-psgtm](http://www.pims.math.ca/scientific-event/150629-psgtm).

\* 29-July 10 **Winter School 2015 on Algebra, Geometry and Physics**, The University of Queensland, Queensland, Australia.

**Description:** The AMSI Winter School in the Mathematical Sciences is based on successful US and European models. Since 2004, the Winter School has become an annual event, hosted by The University of Queensland. The Winter School is designed for graduate students and postdoctoral fellows in the mathematical sciences and cognate disciplines. Students, researchers and employees working at the intersection between Algebra, Geometry and Physics or who have an interest in increasing their breadth of knowledge in these areas are invited to attend.

**Course content:** Vertex Operator Algebras, K-theory and Moduli spaces.

**Why attend?:** Hear from eminent national and international lecturers Learn mathematical tools and techniques used in research Meet other PhD students and ECRs in the Mathematics/Mathematical Physics space Expand your knowledge of Representation Theory Understand key aspects of current research underway here in Australia and overseas.

**Information:** [ws15.amsi.org.au/](http://ws15.amsi.org.au/).

## July 2015

\* 6-10 **Dynamics and Geometry in the Teichmüller Space**, CIRM, Marseille Luminy, France.

**Description:** Within the last fifteen years, Dynamics and geometry in the Teichmüller space is an area that has known considerable progress and to which many first-class mathematicians have contributed. One such recent development is a theorem by Eskin and Mirzakhani that proves that complex geodesics and their closures in moduli space are surprisingly regular, rather than irregular or fractal, a fantastic new path that revolutionizes this area of research and was announced in 2012.

**Main topics:** We want to focus on in this workshop are at the border with geometry, algebraic geometry, topology, dynamical systems, ergodic theory and number theory.

**Information:** [scientific-events.weebly.com/1115.html](http://scientific-events.weebly.com/1115.html).

\* 6-12 **Summer School in Geometric Analysis**, Northwestern University, Evanston, Illinois.

**Description:** This Summer School in Geometric Analysis at Northwestern will feature six speakers who will give introductory mini-courses, aimed at graduate students and recent PhDs, in various topics in geometric analysis.

**Mini-courses:** Esther Cabezas-Rivas (Frankfurt) “Mean Curvature Flow”; Brett Kotschwar (Arizona State) “Introduction to the Ricci flow”; Aaron Naber (Northwestern) “Ricci curvature”; Valentino Tosatti (Northwestern) “The Kähler-Ricci flow”; Ben Weinkove (Northwestern) “The complex Monge-Ampère equation”; Steve Zelditch (Northwestern); “Geodesics in the space of Kähler metrics”.

**Information:**

[math.northwestern.edu/emphasisGA/summerschool/](http://math.northwestern.edu/emphasisGA/summerschool/).

\* 6–17 **CIMPA School: Random processes and optimal configurations in analysis**, Buenos Aires, Argentina.

**Description:** The school will consist of 11 courses (3 hours each) and plenary talks. The main topics of the school lie in the interface between the theory of point processes in probability theory and the theory of optimal distribution of points in analysis.

**Courses:** Pavel Bleher (IUPUI), Pablo Ferrari (Univ. de Buenos Aires); Alice Guionnet (MIT); Manjunath Krishnapur (Indian Institute of Science); Joaquim Ortega Cerda (Univ. de Barcelona); Etienne Sandier (Univ. Paris XII Val de Marne); Sylvia Serfaty (Univ. Pierre et Marie Curie Paris VI); Mariya Scherbina (Inst. of Low Temperature of Ukraine); Mikhail Sodin (Tel Aviv Univ.); Balint Virag (Univ. of Toronto); Ofer Zeitouni (Weizmann Inst. of Science).

**Main speakers:** Yacin Ameur (Lund Univ.); Diego Armentano (Udear); Zakhar Kabluchko (Ulm Univ.); José León (Univ. Central de Venezuela); Alexander Borichev (Aix-Marseille Univ.); Daniel Remenik (Univ. de Chile).

**Information:** [bacimpaschool.weebly.com/](http://bacimpaschool.weebly.com/).

\* 7–10 **Fourth Summer School on Quantum Ergodicity and Harmonic Analysis. Eigenfunction estimates and related topics**, University of Marburg, Marburg, Germany.

**Description:** The purpose of this summer school is to provide an introduction, accessible for doctoral students, to the very active field of the study of eigenfunction estimates on Riemannian symmetric spaces and related topics.

**Main speakers:** Simon Marshall (Wisconsin-Madison), Christopher Sogge (Johns Hopkins) and Melissa Tacy (Adelaide).

**Information:** [www.uni-math.gwdg.de/QE2015](http://www.uni-math.gwdg.de/QE2015).

\* 7–23 **Graduate Summer School: Games and Contracts for Cyber-Physical Security**, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California.

**Description:** This summer school will provide an advanced introduction on how the mathematical tools of game theory can be applied to improve the resilience (security and reliability) of cyber-physical systems (CPS) that control critical national infrastructures, such as our electricity, water, and transportation networks. Game-theoretic tools allow analyzing strategic behavior of the entities upon whose choices the CPS operations depend. The summer school will cover: mathematical tools from game theory; economic applications of game theory, such as principal-agent theory, dynamic games and contracts, regulation, mechanism design and auctions, and matching and market design; game theory for cyber physical systems, especially security and resilience with applications to various infrastructure domains.

**Deadline:** For application: March 31, 2015.

**Information:** [www.ipam.ucla.edu/programs/summer-schools/graduate-summer-school-games-and-contracts-for-cyber-physical-security/](http://www.ipam.ucla.edu/programs/summer-schools/graduate-summer-school-games-and-contracts-for-cyber-physical-security/).

\* 11–14 **Workshop on New Directions for the Tutte Polynomial: Extensions, Interrelations, and Applications**, Royal Holloway University of London, Egham, United Kingdom.

**Description:** The Tutte polynomial is unquestionably the most heavily studied, and arguably the most important, graph polynomial. It specialises to a myriad other graph polynomials and invariants, and has found important interpretations and applications in areas such as statistical mechanics, quantum field theory, knot theory, and biology. It is a pervasive object in graph theory and its applications. This workshop will bring together researchers who have an interest in the many wide-ranging properties and applications of the Tutte polynomial, and in graph polynomials more generally. It will focus on some of the most recent advances in the field, including topological extensions, connections with matroid theory, computation and approximation, and on applications of graph polynomials to biomathematics and physics. It will provide an effective forum for sharing ideas, techniques and applications.

**Information:** [tutte2015.ma.rhul.ac.uk/](http://tutte2015.ma.rhul.ac.uk/).

\* 12–17 **Integrability in algebra, geometry and physics: new trends**, Congressi Stefano Franscini, Ascona, Switzerland.

**Description:** The unifying theme of this conference is integrability, a basic notion that first appeared in classical mechanics and that continues to be unexpectedly of key importance in various areas of mathematics and physics. The conference will focus on some of the newest developments in this subject with particular attention to the interrelations between different subject areas. It will focus on the following partly overlapping topics: (1) Cherednik algebras and Lie algebras, (2) Poisson geometry, Yang-Baxter structures, deformations and quantization, (3) Frobenius manifolds, bi-Hamiltonian integrable hierarchies, and moduli spaces, (4) discrete geometry and discrete integrability, (5) random matrices, asymptotic analysis and special functions. The conference will also be the occasion to celebrate Alexander Veselov’s 60th birthday.

**Information:** [www.maths.gla.ac.uk/~mf/APV60/](http://www.maths.gla.ac.uk/~mf/APV60/).

\* 13–17 **Impact of Geometric Group Theory**, CIRM, Marseille Luminy, France.

**Description:** By now, the areas of dynamics and of geometric group theory extend to numerous active branches of mathematics such as low-dimensional topology, algebraic topology, complex dynamics, Teichmüller theory, logics, Riemannian geometry, representation theory, operator algebras etc. The present conference will be the opportunity not only to present the most recent progress in dynamics of group and/or geometric group theory, but also to report on their recent impact on related domains.

**Information:** [scientific-events.weebly.com/1224.html](http://scientific-events.weebly.com/1224.html).

\* 15–22 **International Workshop, Groups and Rings, Theory and Applications (GRiTA2015)**, Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences, Sofia, Bulgaria.

**Description:** The Workshop is organized by the Institute of Mathematics and Informatics at the Bulgarian Academy of Sciences. Its purpose is to present the current state of the art in group theory and ring theory and their applications. In particular, we expect to emphasize on combinatorial group theory, finite simple groups, combinatorial and computational ring theory, noncommutative ring theory and theory of PI-algebras, commutative and noncommutative invariant theory, automorphisms of polynomial and other free algebras, representation theory of groups, Lie algebras and Lie superalgebras. The applications are oriented but not limited to scientific computations, coding theory, cryptography, statistics, wireless communications. The Workshop will include invited talks and research contributions. The time for the presentation of invited talks is 45 minutes and the time for the research contributions is 30 minutes, including questions.

**Information:** [www.math.bas.bg/algebra/GRiTA2015/](http://www.math.bas.bg/algebra/GRiTA2015/).

\* 19–24 **Summer School on Transport, Fluid and Mixing**, Levico Terme, Trento, Italy.

**Description:** The School aims at introducing researchers, especially graduate students and postdocs, to the state of the art in the analysis of transport and mixing properties in fluid mechanics, and related problems. The format of the school consists in four short courses by leading experts in the field. There will also be an opportunity for participants to present a poster.

**Short Courses:** Yann Brenier (CNRS, Centre Laurent Schwartz, Ecole Polytechnique, Palaiseau, F): Concepts of generalized flows in Fluid Mechanics Peter Constantin (Princeton University, USA): Uniqueness, regularity and long time behavior of hydrodynamic evolution equations Charlie Doering (University of Michigan, Ann Arbor, USA): Models and measures of mixing and effective diffusion Alexander Kiselev (Rice University, USA): Small scale creation in inviscid fluids.

**Information:** [www.science.unitn.it/cirm/TFM2015.html](http://www.science.unitn.it/cirm/TFM2015.html).

\* 27–August 2 **22nd IMC (International Mathematics Competition for University Students)**, American University in Bulgaria, Blagoevgrad, Bulgaria.

**Description:** The 22nd IMC is being organized by University College London and hosted by the American University in Bulgaria, Blagoevgrad, Bulgaria. Every participating university is invited to send several students and one teacher. Individual students are welcome. The competition is planned for students completing their first, second, third or fourth year of university education and will consist of 2 Sessions of 5 hours each. Problems will be from the fields of Algebra, Analysis (Real and Complex), Geometry and Combinatorics. The working language will be English. Over the previous twenty one competitions we have had participants from over two hundred institutions in over fifty countries. Although this is an individual event, the Universities traditionally divide their participants into groups of four each. The number of students in the teams is, however, not fixed. The professor who accompanies the students is expected to be a member of the Jury.

**Information:** [www.imc-math.org.uk](http://www.imc-math.org.uk).

### August 2015

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\* 2–7 **The International Conference “Mathematical and Computational Modeling in Science and Technology” (ICMCMST’15)**, Izmir University, Izmir, Turkey.

**Description:** The ICMCMST’15 conference is aimed to bring experts, researchers and postgraduate students on Mathematical and Computational Modeling in several fields of Science, Technology and Engineering, such as theoretical and computational aspects in Mathematics, Informatics, Physics, Chemistry, Mechanics, Biology, Economics, and other sciences, from the entire world in order to discuss high level scientific questions, exchange solid knowledge of pure and applied sciences, and investigate diverse backgrounds, theoretically and practically. The areas of interest include but are not limited to: Partial Differential Equations: Theory and Applications; Fractional Operators and Their Applications; Inverse Problems: Modeling and Simulation; Mathematical Methods in Systems Biology, Optimization and Control; Difference and Time-Scale Dynamic Equations; Probability, Statistics and Numerical Analysis; Computational Models in Science and Technology.

**Information:** [icmcmst.alpha-publishing.net](http://icmcmst.alpha-publishing.net).

\* 10–11 **Global Summit and Expo on Multimedia & Applications**, Hilton Metropole, Birmingham, United Kingdom.

**Description:** Multimedia applications conferences have an almost innumerable variety of applications. They are used in education,

entertainment, engineering, medicine, mathematics, business and scientific research. Multimedia systems conferences are highly anticipated conferences due to the integration of various fields. Multimedia simulation conferences are designed to bring together all the researchers, professors, industrialists, academic scientists to foster an environment conducive to exchanging ideas, information and research. Digital electronic media events provides a chance to active researchers to explain the recent progress, trends, advancements in the field of multimedia and the solutions they came up with practical problems faced during the phases of research in the field of multimedia and applications. Multimedia applications events are an international platform which aims to gather results from academia and industry partners working in all sub fields of multimedia.

**Information:** [multimedia.global-summit.com/](http://multimedia.global-summit.com/).

\* 26–30 **Algebraic Combinatorics and Applications**, Michigan Technological University, Houghton, Michigan 49931

**Description:** The goal of the conference is to bring together researchers and students interested in algebraic combinatorics and its applications to communications, classical and quantum error-correcting codes, cryptography, information security, computer science, finite geometry, combinatorial designs, graphs, and other related areas, in order to promote new linkages and collaborations.

**Information:** [www.math.mtu.edu/~tonchev/aca15.htm](http://www.math.mtu.edu/~tonchev/aca15.htm).

\* 31–September 4 **Cohomological Methods in the Theory of Algebraic Groups**, CIRM, Marseille Luminy, France.

**Description:** In the last 15 years, the theory of algebraic groups has witnessed an ever increasing use of cohomological methods from modern algebraic geometry and algebraic topology. These new methods have led to breakthroughs in a number of classical problems in algebra, which seemed beyond the reach of earlier purely algebraic techniques. The purpose of this workshop is to provide a forum for experts in the field of algebraic groups or in related areas to exchange ideas, disseminate new techniques and discuss recent developments. The workshop will be an opportunity for younger researchers to learn about open problems and state-of-the-art techniques in this field.

**Information:** [scientific-events.weebly.com/1001.html](http://scientific-events.weebly.com/1001.html).

### September 2015

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\* 7–11 **Additive Combinatorics in Marseille**, CIRM, Marseille Luminy, France.

**Description:** At an international level, the scientific subject of the conference, additive combinatorics, has been flourishing for a few years and has now become an independent branch of mathematics. Since the famous Szemerédi’s theorem on the density of sets of integers without arithmetic progression, several results have been obtained, of which some attained a high level of notoriety, like the inverse Freiman-Ruzsa’s theorem, the Erdős-Ginzburg-Ziv theorem, the Balog-Szemerédi-Gowers theorem, the Green-Tao theorem or the results on the Davenport constant, to quote a few. The conference will offer a good opportunity to summarize the present state of the art on the subject and on its connections to all other branches of mathematics connected to it.

**Information:** [scientific-events.weebly.com/1107.html](http://scientific-events.weebly.com/1107.html).

\* 7–11 **The Cauchy Problem in Kinetic Theory: Recent Progress in Collisionless Models**, Imperial College, London, United Kingdom.

**Description:** In this conference we aim to bring together the top

specialists in the field of collisionless kinetic theory, along with promising young mathematicians, to explore recent progress, identify important open problems, and hopefully set a course for the next few years. The field of collisionless kinetic theory has seen a revived interest in recent years, in part due to some noteworthy results, such as the result of C. Mouhot & C. Villani concerning Landau Damping. This conference aims to harness this renewed interest to generate momentum and attract young researchers to this field. Some of the most influential results of the last decades are due to Walter Strauss, Bob Glassey and Jack Schaeffer: three mathematical generations. We will use this opportunity to mark their contributions to this field. In particular, we shall mark Bob's 70th birthday, as well as the 20th anniversary of the publication of his book "The Cauchy Problem in Kinetic Theory".

**Information:**

[wwwf.imperial.ac.uk/~jbenartz/Conference-2015/index.html](http://wwwf.imperial.ac.uk/~jbenartz/Conference-2015/index.html).

\*7-11 **First Joint International Meeting of the Israel Mathematical Union and the Mexican Mathematical Society**, Instituto Tecnológico de Oaxaca, Oaxaca, Mexico.

**Plenary speakers:** Andrés Christen (CIMAT, Mexico), Dania Gutiérrez (CINVESTAV-Monterrey, Mexico), Daniel Juan (CCM-UNAM, Mexico), Nathan Linial (Hebrew University of Jerusalem, Israel), Michael Polyak (Technion, Israel), Sergio Rajsbaum (IMATE-UNAM, Mexico), Jacob Rubinstein (Technion, Israel), Barak Weiss (Tel Aviv University, Israel).

**Special sessions:** Algebra and Group Theory, Algebraic Geometry, Applied and Industrial Mathematics, Approximation Theory, Bioinformatics and Systems Biology, Combinatorics, Computer Science, Dynamical Systems, Geometry and Topology, Low Dimensional Topology, Numerical Analysis, Partial Differential Equations.

**Information:** [mathmeetingisraelmexico.matem.unam.mx/](http://mathmeetingisraelmexico.matem.unam.mx/).

\*7-12 **Manifolds and Groups**, Ventotene (LT), Italy.

**Scope:** To strengthen the already existing knowledge of the relationship between 3-manifold theory, topology, probability theory, and analytic group theory, while expanding it in directly related areas of research that recently came to the forefront of the worldwide mathematical scenery. In addition to research talks there will be an instructional component in the form of three minicourses with the focus in Towers of covers and applications.

- Invariant Random Subgroups in rank one and higher rank Lie groups, Tsachik Gelander (Hebrew University and Weizmann Institute).
  - Coverings and expanders, Emmanuel Kowalski (ETHZ).
  - L2-invariants and growth of homology in towers of finite coverings, Roman Sauer (Karlsruhe Institute of Technology).
- Doctoral students and young researchers are particularly encouraged to apply by sending email to: [ventotene2015@gmail.com](mailto:ventotene2015@gmail.com).
- a CV.
  - a short statement describing the relevance of the participation to this conference for their research.
  - a letter of recommendation.

**Deadline:** For the application: April 15, 2015.

**Information:** Additional information can be found at the webpage of the conference [www.ventotene2015.net](http://www.ventotene2015.net).

\*14-16 **International Conference on Signal Processing**, Embassy Suites Las Vegas 4315 Swenson Street, Las Vegas, Nevada.

**Description:** The conference throws light on thought provoking topics and recent research in the field of Signal processing like, Wireless Communication Processing, Power Systems, Electromagnetic systems, VLSI Technology and Embedded Systems, Multimedia and Communications, Nano electronics & Nano photonics, Array processing, and many more. The organizing committee is gearing up for an exciting and informative conference program including plenary lectures, symposia, workshops on a variety of topics, poster presentations and various programs for participants from all over the world. We invite you to join us at the Signal Processing-2015 International Conference, where you are sure to have a meaningful experience with scholars from around the world. All the Organizing Committee Members of the Signal Processing-2015 International Conference look forward to meet you in Las Vegas, USA.

**Information:** [signalprocessing.conferenceseries.com/](http://signalprocessing.conferenceseries.com/).

\*14-18 **GAGTA-9: Geometric, Asymptotic and Combinatorial Group Theory and Applications**, CIRM, Marseille Luminy, France.

**Description:** The series of conferences named GAGTA is devoted to the confrontation of several viewpoints on the theory of infinite groups: geometric, combinatorial, asymptotic and probabilistic, algorithmic and computational.

**Topics:** Topics discussed at these conferences include group actions; growth and isoperimetric functions and other asymptotic invariants; random walks; algebraic geometry on groups; algorithmic properties and their complexity; generic properties and more generally generic complexity; and applications of group theory, notably to non-commutative cryptography. The 2015 edition of the conference, the first to be held in France will additionally bring a special emphasis to the contributions of asymptotic theory; the algorithmic aspects of group theory and its connections with computer science.

**Information:** [scientific-events.weebly.com/1212.html](http://scientific-events.weebly.com/1212.html).

\*18-20 **LMS-EMS mathematical weekend**, Birmingham University, Edgbaston Campus, Birmingham, United Kingdom.

**Description:** To celebrate the 150th year of the London Mathematical Society (LMS) and the 25th year of the European Mathematical Society (EMS) we are organizing a mathematical weekend, to be held in Birmingham from Friday September 18th to Sunday 20th, 2015. All mathematicians, from Europe and elsewhere, are warmly invited to participate. The weekend features three themes: Algebra, Analysis and Combinatorics. There will be plenary talks by Noga Alon, Keith Ball, Béla Bollobás, Timothy Gowers, Stefanie Petermichl, and Aner Shalev. There will be over twenty other invited talks presented in parallel sessions. Participation by early-stage researchers is particularly welcome and some funding is available to support them. Additional sessions are planned for post-doctoral researchers to present their work, and there will be a poster session for doctoral students.

**Information:** [web.mat.bham.ac.uk/ems1msweekend/](http://web.mat.bham.ac.uk/ems1msweekend/).

\*18-20 **Workshop on Geometrical Analysis dedicated to the 60th birthday of Jan Maly**, Charles University, Prague, Czech Republic.

**Description:** The workshop will take place from Friday, September 18, to Sunday, September 20, 2015, at the lecture room K1, second floor, Sokolovska 83, Prague 8, Czech Republic. The program will consist of lectures delivered by invited speakers who are coauthors of Jan Maly. Another purpose of the meeting is to bring together mathematicians with common interest in the Geometrical Analysis and related topics.

**Speakers:** Luigi Ambrosio (SNS Pisa); Jana Bjorn (Linkoping University); Bernard Dacorogna (EPFL, Lausanne); Irene Fonseca (Mellon College of Science University, Pittsburg); Piotr Hajlasz (University of Pittsburgh); Tero Kilpelainen (University of Jyväskylä); Pekka Koskela (University of Jyväskylä); Jaroslav Lukes (Charles University in Prague); Olli Martio (University of Helsinki); Jani Onninen (University of Jyväskylä); Lubos Pick (Charles University in Prague); Ludek Zajicek (Charles University in Prague).

**Information:** [www.karlin.mff.cuni.cz/workshopprague/](http://www.karlin.mff.cuni.cz/workshopprague/).

\* 21–25 **AIM Workshop: Geometric flows and Riemannian geometry**, American Institute of Mathematics, San Jose, California.

**Description:** This workshop, sponsored by AIM and the NSF, will be devoted to geometric flows and Riemannian geometry.

**Information:**

[aimath.org/workshops/upcoming/flowriemannian](http://aimath.org/workshops/upcoming/flowriemannian).

\* 21–25 **Elliptic Methods and Moduli Spaces**, CIRM, Marseille Luminy, France.

**Description:** Nowadays, most of Symplectic topology and Gauge theory are based on a very diverse and profound set of Floer theories, which are themselves derived from a rich and complex corpus of moduli spaces. In this school, which is part of the Jean Morlet Chair semester granted to François Lalonde, some theories that have all followed the Floer theory, but in contexts that are far more general or in contexts that seem a priori radically different will be the main focus. Such theories are : the Floer theory itself, the Fukaya-Oh-Ohta-Ono theory, the Cornea-Lalonde Cluster theory, the Embedded contact homology, the Symplectic field theory, the cobordisms and rigidity of Lagrangian submanifolds theory developed by Biran-Cornea etc.

**Information:**

[lalondeteleman.weebly.com/doctoral-school.html](http://lalondeteleman.weebly.com/doctoral-school.html).

\* 28–October 2 **Frontiers of Operator Dynamics**, CIRM, Marseille Luminy, France.

**Description:** Dynamics of linear operators, often seen as dynamics of the corresponding discrete or continuous operator semigroup, is a mature but at the same time steadily evolving field serving as a common denominator for many other areas of mathematics, such as for instance ergodic theory, complex analysis, harmonic analysis and the theory of partial differential equations. It consists in the study of the long-time behaviour of orbits of certain classes of operators or semigroups acting on Banach or Fréchet spaces, both from the topological and from the ergodic point of view. The aim of the meeting is to bring together researchers whose main interests interact with issues pertaining to the study of qualitative and quantitative properties of operator orbits (or operator semigroups) as well as experts in ergodic theory, and to initiate a fruitful interchange of ideas from complementary areas of expertise.

**Information:** [scientific-events.weebly.com/1125.html](http://scientific-events.weebly.com/1125.html).

## October 2015

\* 3–4 **Central Fall Sectional Meeting**, Loyola University Chicago Chicago, Illinois.

**Information:**

[www.ams.org/meetings/sectional/sectional.html](http://www.ams.org/meetings/sectional/sectional.html).

\* 5–9 **Digital Humanities: Critical Edition of Diderot and D’Alembert’s Encyclopedia**, CIRM, Marseille Luminy, France.

**Description:** The ongoing work on a digital critical edition of Diderot and D’Alembert’s Encyclopedia has given rise to an ambitious international Digital Humanities project, supported by the Académie des Sciences, called ENCCRE (which stands for ‘Edition Numérique Collaborative Critique de l’Encyclopédie’). Involving a team of 50 specialists, it is based on cooperation between researchers from different countries working in a variety of disciplines; this diversity of disciplines and critical approaches corresponds to the range of fields of knowledge found in the Encyclopédie. ENCCRE will provide a digital tool adapted to the complexity of the Encyclopédie from the editorial point of view, while at the same time being able to keep up with changes in methods of reading and research.

**Information:** [scientific-events.weebly.com/1191.html](http://scientific-events.weebly.com/1191.html).

\* 9–11 **Symposium on Biomathematics and Ecology: Education and Research (BEER-2015)**, Illinois State University, Normal, Illinois.

**Description:** We welcome researchers, educators, graduate and undergraduate students, and scientists to join in-depth discussions on a wide variety of interdisciplinary problems regarding computational biology, ecology, biomathematics, biostatistics and related fields. We also enthusiastically welcome educators of these fields to share their expertise in curriculum development and related challenges.

**Information:** [www.biomath.ilstu.edu/beer](http://www.biomath.ilstu.edu/beer).

\* 10–11 **35th Annual Southeastern-Atlantic Regional Conference on Differential Equations (SEARCDE 2015)**, The University of North Carolina at Greensboro, Greensboro, North Carolina.

**Description:** The primary objective of this conference is to promote research and education in the field of differential equations by bringing together established mathematicians, recent PhD recipients, and graduate students. A wide range of topics, including ordinary and partial differential equations, dynamical systems, integral and functional equations, numerical methods, inverse problems, differential geometry, control theory, and applications to biology, finance, engineering and the sciences in general are often represented. Eminent mathematicians H. T. Banks (North Carolina State University), Pavel Drabek (University of West Bohemia), Lisa Fauci (Tulane University) and Peter Polacik (University of Minnesota) are the plenary speakers. In addition to the plenary talks, participants will have the opportunity to present contributed talks.

**Information:** [www.uncg.edu/mat/searcdeconf/2015/](http://www.uncg.edu/mat/searcdeconf/2015/).

\* 12–16 **Ordered Algebraic Structures and Related Topics**, CIRM, Marseille Luminy, France.

**Description:** The meeting will mark the 30th anniversary of the Paris seminar “Structures algébriques ordonnées” and will be organized around the areas of research that have been central to the seminar activities, namely: Ordered groups, rings and fields; real algebra; valuation theory; Model-theoretic methods and algorithmic aspects; positive polynomials and optimisation; real algebraic and analytic geometry; o-minimality and quadratic forms; abstract spaces of orders and real semigroups.

**Information:**

[scientific-events.weebly.com/1155.html](http://scientific-events.weebly.com/1155.html).

\* 17–18 **Fall Southeastern Sectional Meeting**, University of Memphis, Memphis, Tennessee.

**Information:** [www.ams.org/meetings/sectional/sectional.html](http://www.ams.org/meetings/sectional/sectional.html).

\* 19–23 **Whitney Problems Workshop**, CIRM, Marseille Luminy, France.

**Description:** Motivated by boundary value problems for partial differential equations, classical trace and extension theorems characterize traces of spaces of generalized smoothness such as Sobolev and Besov to smooth submanifolds of Euclidean space. The subject originated from Hassler Whitney seminal papers of 1934, which deal with the following problem: given a real function on an arbitrary subset of Euclidean space, determine whether it is extendible to a function of a prescribed smoothness on the entire space. The objective of the meeting is to bring together an international group of experts in the areas of function theory and functional and geometric analysis to report on and discuss recent progress and open problems in the area of Whitney type problems.

**Information:** [scientific-events.weebly.com/1128.html](http://scientific-events.weebly.com/1128.html).

\* 24–25 **Fall Western Sectional Meeting**, California State University, Fullerton, Fullerton, California.

**Information:** [www.ams.org/meetings/sectional/sectional.html](http://www.ams.org/meetings/sectional/sectional.html).

\* 26–30 **Moduli Spaces in Geometry**, CIRM, Marseille Luminy, France.

**Description:** It is a remarkable fact that the moduli stack of Higgs bundles features prominently in many aspects of the Langlands program. Ngô Bảo Châu used the topology of the moduli stack of Higgs bundles and the Hitchin map to prove the fundamental lemma in the Langlands program over function fields over finite fields. Drinfeld and Laumon proposed a geometric version of the Langlands program which works over arbitrary fields, in particular, over  $\mathbb{C}$ . It postulates an equivalence between the derived category of  $D$ -modules on the moduli stack of principal  $G$ -bundles and the derived category of  $O$ -modules on the stack of local systems for the Langlands dual group on an algebraic curve. Donagi and Pantev showed that the Hitchin integrable system for a simple algebraic group is dual to the Hitchin system for the Langlands dual group. This can be interpreted as a “classical limit” of the Geometric Langlands Conjecture. The meeting will discuss recent results related to these spectacular developments.

**Information:** [scientific-events.weebly.com/1139.html](http://scientific-events.weebly.com/1139.html).

## November 2015

\* 2–6 **Conference in Noncommutative Geometry**, CIRM, Marseille Luminy, France.

**Description:** One of the aims of noncommutative geometry is to generalize the main tools of geometry to a class of regular enough  $C^*$ -algebras which can be considered as noncommutative spaces and thus get applications in geometry, analysis, number theory and quantum mechanics. This query involves many different tools and questions. This conference will make an overview of some of them, i.e. Index theorems and applications, Applications of cohomological theories, Baum-Connes conjecture, Group Geometry and Von Neumann Algebras, Quantum Groups, sub-factors, Groupoids and applications.

**Information:** [scientific-events.weebly.com/1206.html](http://scientific-events.weebly.com/1206.html).

\* 3–10 **SEAMS school: Algebras and Their Applications (Quantum Physics, Cryptography and Statistics)**, Institute for Mathematical Research, Universiti Putra, Malaysia.

**Description:** The South East Asian Mathematical Society initiates the SEAMS School of Mathematics as a series of intensive 7-day workshop. The purpose of this school is to provide opportunities for advanced undergraduate and postgraduate students to have an advanced learning experience in mathematics, and to introduce a research-based learning. This school will introduce fundamental notions of Algebras, Quantum Physics, Cryptography and Statistics. It is addressed to advanced undergraduate and graduate students as well as young researchers from South East Asian countries. It will provide them with some of the knowledge necessary to further study and research.

**Speakers:** Prof. Dr. Andreas Enge, Institute of Mathematics, Bordeaux, France; Prof. Dr. Michel Planat, FEMTO-ST Institute, France; Prof. Dr. Isamiddin S. Rakhimov, Universiti Putra Malaysia, Malaysia; Prof. Eva Riccomagno, University of Genova, Italy; Assoc. Prof. Dr. Hailiza Kamarul Haili, Universiti Sains Malaysia, Malaysia.

**Information:** [einspem.upm.edu.my/seams2015/index.php](http://einspem.upm.edu.my/seams2015/index.php).

\* 5–7 **The 14th International Conference on Mathematics and its Applications-Icma 2015. Workshop on Mathematical Methods in Quantum Information Theory. Workshop on Dynamical Systems and their Application**, Department of Mathematics, Politehnica University of Timisoara, Romania.

**Description:** ICMA 2015 is organized by the Department of Mathematics, Politehnica University of Timisoara together with Romanian Academy–Timisoara Branch. The Conference is devoted to the following fields: Mathematical Analysis and Applications; Algebra and Geometry, Computer Algebra Systems in Research; Applied Mathematics in Engineering and Economics; Probability and Statistics, Applications in Health and Clinical Research.

**Information:** [www.mat.upt.ro/Upt-Timisoara\\_94\\_ro.html](http://www.mat.upt.ro/Upt-Timisoara_94_ro.html).

\* 9–13 **Controllability of Partial Differential Equations and Applications**, CIRM, Marseille Luminy, France.

**Description:** In recent years, the theory of control of partial differential equations (PDEs) has tremendously evolved and the field is rapidly growing and includes control of conservation laws, of nonlinear PDEs, of degenerate equations, of equations with delay or memory, of systems of PDEs etc. Interactions between finite and infinite dimensions are to be mentioned as well both at the theoretical level and for the discretization of some continuous control problems. The objectives of the conference are to review the recent advances and the determination of new and promising research directions.

**Information:** [scientific-events.weebly.com/1368.html](http://scientific-events.weebly.com/1368.html).

\* 14–15 **Fall Eastern Sectional Meeting**, Rutgers University, New Brunswick, New Jersey.

**Information:**

[www.ams.org/meetings/sectional/sectional.html](http://www.ams.org/meetings/sectional/sectional.html).

\* 23–27 **Algebraic Geometry and Complex Geometry**, CIRM, Marseille Luminy, France.

**Description:** The aim of this conference is to get together algebraic geometers and complex geometers, around recent topics of interest. Mornings are devoted to 5 mini-courses, given by experts of important new developments.

**Topics:** Stability and applications to birational and hyperkaehler geometry, K-stability and Khler geometry, Classification of compact Khler varieties, Hodge modules applications and Tate's conjecture for K3 surfaces. Afternoons are devoted to more specialized one-hour talks and will be chosen by the scientific committee 3 months before the conference.

**Information:** [scientific-events.weebly.com/1393.html](http://scientific-events.weebly.com/1393.html).

\*26 **4th IMA Conference on Mathematics in Defence**, Satellite Applications Catapult, Harwell, Oxford, United Kingdom.

**Description:** Science and technology play an increasingly important role in equipping and supporting the armed forces. Mathematics is fundamental to these disciplines, providing a framework for understanding and solving the varied and complex problems faced, and is used to model military systems and scenarios. These models can be used to estimate system performance, suggest improvements, or find weaknesses of real systems. This conference brings together a wide variety of mathematical methods with defence and security applications. The programme will include keynote speakers, contributed presentations and poster sessions as well as refreshment breaks for informal discussions. It is intended for mathematicians, scientists and engineers from industry and academia, as well as government and military personnel who have an interest in how mathematics can be applied to defence problems.

**Information:** [www.ima.org.uk/conferences/conferences\\_calendar/4th\\_mathematics\\_in\\_defence.cfm.html](http://www.ima.org.uk/conferences/conferences_calendar/4th_mathematics_in_defence.cfm.html).

\*30-December 4 **AIM Workshop: Automorphic kernel functions**, American Institute of Mathematics, San Jose, California.

**Description:** This workshop, sponsored by AIM and the NSF, will focus on the study of automorphic kernel functions as used in various versions of the trace formula.

**Information:**

[aimath.org/workshops/upcoming/automorphkernel](http://aimath.org/workshops/upcoming/automorphkernel).

### December 2015

\*3-4 **Workshop on Integrable Systems**, School of Mathematics and Statistics University of Sydney NSW, Australia.

**Description:** This event follows the workshops that we organized previous years, see [www.maths.usyd.edu.au/u/integrable/wp.maths.usyd.edu.au/igs/workshops/december2014/](http://www.maths.usyd.edu.au/u/integrable/wp.maths.usyd.edu.au/igs/workshops/december2014/).

\*6-11 **71st Annual Deming Conference on Applied Statistics**, Tropicana, Atlantic City, New Jersey.

**Description:** The full program as well as a downloadable printed version will be available at [www.demingconference.com](http://www.demingconference.com) by June 1st and online registration will open in August. The purpose of the three-day Deming Conference on Applied Statistics is to provide a learning experience on recent developments in statistical methodologies. The 3-day conference is followed by two parallel 2-day short courses. The conference is composed of twelve three-hour tutorials on current applied statistical topics. The books, on which these sessions are based, are available for sale at an approximately 40% discount. While these books are not available by mail, if someone from your firm registers, you could ask them to purchase some for

you. Attendees will receive bound proceedings of the presentations. There will also be poster sessions. The conference will be held in the state-of-the-art Havana Tower of the Tropicana Casino Resort with free high speed Internet. Walter Young has chaired this conference for 45 consecutive years.

**Information:** [www.demingconference.com](http://www.demingconference.com).

\*7-11 **Present Challenges of Mathematics in Oncology and Biology of Cancer**, CIRM, Marseille Luminy, France.

**Description:** This workshop will bring together specialists and young researchers from different mathematical backgrounds (modeling, numerical simulations and analysis) and those working in the field of oncology. It will focus on five issues, all of them concerning ongoing projects in the Marseille's units. The first one is Microtubules, migration and cancer; the second Metronomic chemotherapy, the third is 3-Cancer Stem cells, evolution of phenotype; the fourth is Biomarkers and finally we have Imaging and cancer. Through these sessions, we will put in light how mathematical modeling can help oncologists in terms of prognostic, prediction and therapy scheduling. We want to gather international experts in these five area of research in order to exchange and intensify the relations between the mathematical pharmacologists and oncologists communities.

**Information:** [scientific-events.weebly.com/1412.html](http://scientific-events.weebly.com/1412.html).\*

14-17 **Geometric aspects on capillary problems and related topics**, Granada, Spain.

**Description:** The aim of this 4-day conference is to bring together active researchers on constant mean curvature/minimal surfaces and capillarity, or other condition on the boundary of the surface, and provide a panorama of the field through a variety of talks. The meeting will cover various topics of the theory of CMC/minimal surfaces and capillarity, free boundary problems or other condition on the boundary of the surface. This includes surfaces in different ambient spaces (Euclidean space, space forms, homogeneous spaces,...) or surfaces with other type of prescribed mean curvature (sessile/pendant drops, translating solitons, rotating drops,...)

**Information:**

[www.ugr.es/~rcamino/meetingcmc/index.html](http://www.ugr.es/~rcamino/meetingcmc/index.html).

\*14-18 **Semiclassical Analysis and Non-self-adjoint Operators**, CIRM, Marseille Luminy, France.

**Description:** The aim of the ANR project NOSEVOL, of which this will be the concluding conference, is to study refined spectral, microlocal or semi-classical estimates for mainly non-selfadjoint operators and their applications to dynamical and evolution problems. This involves in particular resolvent type estimates, spectral and pseudospectral estimates, numerical simulations, Weylaw type estimates and resonances results. By evolution problems we mean scattering, diffusion, dissipation, damping, propagation or return to the equilibrium phenomena, arising in kinetic theory, relativity, superconductivity, oceanography and mathematical physics. The conference will give an idea of the state of the art and the progress in the study of non-selfadjoint operators at the end of the NOSEVOL project. This will also be an occasion to listen to major actors in connected communities (kinetic theory, dynamical systems, global analysis, statistical physics and mechanics).

**Information:** [scientific-events.weebly.com/1230.html](http://scientific-events.weebly.com/1230.html).

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**January 2016**

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\* 11-15 **AIM Workshop: High and low forcing**, American Institute of Mathematics, San Jose, California.

**Description:** This workshop, sponsored by AIM and the NSF, is devoted to new methods of forcing, in infinitary combinatorics, and in connection with axioms about the real line.

**Information:**

[aimath.org/workshops/upcoming/highlowforcing](http://aimath.org/workshops/upcoming/highlowforcing).

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**February 2016**

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\* 1-6 **ICERM Semester Program on "Dimension and Dynamics"**, Institute for Computational and Experimental Research in Mathematics (ICERM), Providence, Rhode Island.

**Description:** During the semester we will focus on three specific aspects of the interaction between these two areas: (i) Ergodic, algebraic and combinatorial methods in dimension theory (ii) Computations in fractal geometry in dynamical systems; and (iii) Fractal geometry and hyperbolic dynamics.

**Information:** [icerm.brown.edu/programs/sp-s16/](http://icerm.brown.edu/programs/sp-s16/).

\* 15-19 **Ergodic, Algebraic and Combinatorial Methods in Dimension Theory**, Institute for Computational and Experimental Research in Mathematics (ICERM), Providence, Rhode Island. **Description:** There are natural interactions between dimension theory, ergodic theory, additive combinatorics, metric number theory and analysis. Each of these fields provides different perspectives on, and complementary approaches to, the hierarchical structures which appear in fractal geometry. The workshop will focus on recent advances at the interfaces of these fields, including: Classical fractals (self-similar and self-affine sets, random fractals). Dimension theory and additive combinatorics. Diophantine approximation and equidistribution. Schmidt games. Rigidity phenomena. Scenery flow methods. Projection and slice theorems.

**Information:** [icerm.brown.edu/programs/sp-s16/w1/](http://icerm.brown.edu/programs/sp-s16/w1/).

\* 29-March 4 **AIM Workshop: Hereditary discrepancy and factorization norms**, American Institute of Mathematics, San Jose, California.

**Description:** This workshop, sponsored by AIM and the NSF, will be devoted to the application of methods from functional analysis and asymptotic convex geometry to combinatorial discrepancy theory.

**Information:**

[aimath.org/workshops/upcoming/herediscrep](http://aimath.org/workshops/upcoming/herediscrep).

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**March 2016**

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\* 28-April 1 **AIM Workshop: Sheaves and modular representations of reductive groups**, American Institute of Mathematics, San Jose, California.

**Description:** This workshop, sponsored by AIM and the NSF, will be devoted to recent developments in the representation theory of algebraic groups in positive characteristic.

**Information:**

[aimath.org/workshops/upcoming/sheavemodular](http://aimath.org/workshops/upcoming/sheavemodular).

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**April 2016**

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\* 4-8 **Semester Workshop: Computation in Dynamics**, Institute for Computational and Experimental Research in Mathematics (ICERM), Providence, Rhode Island.

**Description:** This workshop will bring together experts in Dynamical Systems and experts in the theory of Computability to exchange ideas and results, and promote collaborations in view of significant developments in the field over the next few years. The workshop will include four main streams of research: Approximation of Dynamical Quantities Regular and Stochastic Properties Renormalization Computability in Dynamics.

**Information:** [icerm.brown.edu/programs/sp-s16/w3/](http://icerm.brown.edu/programs/sp-s16/w3/).

**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.**

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**July 2016**

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\* 1-5 **The 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications**, Hyatt Regency, Orlando, Florida.

**Description:** Featuring the celebration of Peter Lax's 90th birthday. Dedicated is a special journal (DCDS) issue, edited by Alexandre Chorin and Andrew Majda. Proposals of special sessions are welcome.

**Plenary Speakers:** Suncica Canic (USA), Alessio Figalli (USA), Irene Fonseca (USA), Martin Hairer (UK), Anatole Katok (USA), Manuel de Leon (Spain), Wei-Ming Ni (USA), Stan Osher (USA), Hal Smith (USA), Gang Tian (China).

**Scientific Committee:** Shouchuan Hu (Chair: [general@aim-sciences.org](mailto:general@aim-sciences.org)), John Ball, Jerry Bona, William Bray, Alberto Bressan, Gunduz Caginalp, Danielle Hilhorst, Peter Lax, Alain Miranville, Roger Temam, Enrico Valdinoci, Marcelo Viana.

**Organizing Committee:** Xin Lu (chair: [lux@uncw.edu](mailto:lux@uncw.edu)), Yaw Chang, Wei Feng, Michael Freeze, Beth Casper (Administrative Assistant).

**Information:** [aimsciences.org](http://aimsciences.org).

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**August 2016**

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\* 8-11 **SIAM Conference on Nonlinear Waves and Coherent Structures (NW16)**, Sheraton Philadelphia Society Hill Hotel, Philadelphia, Pennsylvania.

**Description:** Information on NW16 will be available at [www.siam.org/meetings/nw16/](http://www.siam.org/meetings/nw16/) in October of 2015.

**Information:** [www.siam.org/meetings/nw16](http://www.siam.org/meetings/nw16).

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**November 2016**

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\* 7-11 **Homological mirror symmetry: methods and structures**, Institute for Advanced Study, Princeton, New Jersey.

**Description:** This workshop is part of the 2016/17 IAS program on Homological Mirror Symmetry.

**Information:** [www.math.ias.edu/sp/mirrorsymmetry](http://www.math.ias.edu/sp/mirrorsymmetry).