Mathematics Calendar

This section contains new announcements of worldwide meetings and conferences of interest to 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. New announcements only are published in the print Mathematics Calendar featured in each *Notices* 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. Asterisks (*) mark those announcements containing revised information.

In general, print announcements of meetings and conferences carry only the date, title of meeting, place of meeting, names of speakers (or sometimes a brief 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 also be noted.

The complete listing of the Mathematics Calendar is available at: `www.ams.org/meetings/calendar/mathcal`

All submissions to the Mathematics Calendar should be done online via: `www.ams.org/cgi-bin/mathcal/mathcal-submit.pl`

Any questions or difficulties may be directed to `mathcal@ams.org`.

January 2016

04 – May 20 **Differential Geometry**
Location: *University of Ouargla, Algeria*
My studies in lie algebra and its representation; group theory
URL: `www.univ-ouargla-dz/index.php/fr/`

11 – 22 **CIMPA-ICTP School on Toric Methods in Geometry, Arithmetic and Dynamics**
Location: *Pontificia Universidad Catlica de Chile, Santiago, Chile.*
The main purpose of this research school is to motivate and train Latin American students and young researchers in these subjects. The first week consists four courses. The second week consists of two curses and ten survey talks. Please see the website for a list of course titles, speakers, and for further details.
URL: `indico.ictp.it/event/7651/`

25 – 29 **RTNS 2016 Winter School**
Location: *Seville, Spain.*
This is the thirteenth Winter School in Dynamical Systems of the DANCE Spanish network. This series of courses aims at training their participants both theoretically and in applications in the field of the nonlinear science; with the aim that theory and applications enforce each other. This will be done in an atmosphere of informal discussion, interchange of ideas and critical discussion of results. Attention will be paid to the numerical and computational issues. As in the previous editions the School will consist of three courses: Alessandra Celletti (Univ. degli Studi di Roma Tor Vergata), Perturbation theory, KAM theorem and celestial mechanics; Ronnie Pavlov (Univ. of Denver), Multidimensional symbolic dynamics; Juan Sánchez Umbria (Univ. Politécnica de Catalunya), Numerical methods for large-scale dissipative dynamical systems.
URL: `www.dance-net.org/rtns2016/`

29 – 31 **International Conference on the Occasion of Silver Jubilee of the Indian Society of Industrial and Applied Mathematics**
Location: *Sharda University, Knowledge Park-3, Greater Noida, U.P.(Delhi NCR), India.*
The Idea of establishing the Indian Society of Industrial and Applied Mathematics was mooted during a Symposium on "Differential Equation with Industrial Application" in 1990 at the Department of Mathematics (AMU) in the presence of distinguished Indian Mathematicians besides a couple of eminent foreign mathematicians like Professor Helmut Neunzert, Prof. Martin Brokate and Prof. Rene' Lozi, Prof. Abul Hasan Siddiqi, chairman of the Department and Director of the Symposium was authorized to take appropriate steps to register the society. A resume of activities is given at society website.
URL: `www.siam-india.in`
URL: `www.sharda.ac.in`

30 – 31 **23rd Southern California Geometric Analysis Seminar**
Location: *University of California, Irvine, California.*
An annual conference on geometric analysis and related fields hosted jointly by UC Irvine and UC San Diego.
Speakers The 2016 SCGAS conference will feature the following speakers: Claudio Arezzo (ICTP Trieste and Parma), Jeff Cheeger (NYU), Mark Haskins (Imperial), Maryam Mirzakhani (Stanford), Chuu-Lian Terng (UC Irvine), Guofang Wei (UC Santa Barbara), and Brian White (Stanford).
URL: `www.math.uci.edu/~scgas`

February 2016

1 – 5 **Conference on Open Problems in Nonsmooth Dynamics**
Location: *Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain.*
With so much progress in recent decades, the landscape of nonsmooth and hybrid dynamical systems is changing. This conference will bring together some of the big breakthroughs and exciting new applications. With key speakers, themed contributed sessions, discussion time and posters, we will look at where the field is going next, how recent advances can be exploited, and what

big challenges are emerging from novel technologies. The conference will be open to a wide range of theoretical and applied themes, and provide a forum to discuss common issues. The conference will initiate a three-month Intensive Research Program being held at the CRM, and will help set the agenda for this major international event (Intensive Research Program: Advances in Nonsmooth Dynamics).
URL: www.crm.cat/en/Activities/Curs_2015-2016/Pages/CNonsmooth.aspx

3 – 5 **8th Iranian Group Theory Conference**
Location: *University of Tabriz, Tabriz, Iran.*
This is the 8th of a series of conferences organized regularly every year by the collaboration of Iranian group theory society. The conference committee cordially invites researchers in the area of group theory to take part in this conference. The registration will be open on October 2015 and detailed information about the venue, accommodation, fees and will be published then in the website of the conference. Iranian group theory conference has started since 2005 with the aim of improving scientific relationships between researchers and students who are interested in group theory. It also aims to exchanging ideas in various areas of group theory.
URL: www.grouptheory.ir/8igtc

8 – 11 **Function Theory on Infinite Dimensional Spaces**
Location: *Mathematical Sciences Building, Universidad Complutense de Madrid, Madrid, Spain.*
This will be the 14th edition of a series of conferences that have taken place on a biennial basis since 1989. It is organized by the Department of Mathematical Analysis of Complutense University of Madrid. Besides the plenary talks, several parallel sessions of 20-minute talks will be organized. Participants willing to deliver a short talk should send the organizers a tentative title and an abstract. Preference will be given to the following fields: geometry of Banach spaces, nonlinear analysis, differentiability, polynomials and multilinear mappings in Banach spaces, holomorphy, hypercyclicity and dynamical systems, and related topics. Up to now the following mathematicians have shown their interest to participate in the conference: Richard M. Aron, Geraldo Botelho, Daniel Carando, Krzysztof Chris Ciesielski, Aris Daniilidis, Robert Deville, Ver onica Dimant, Estibalitz Durand, Alberto Ibort, Sebasti an Lajara, Antoine Lemenant, Manuel Maestre and Daniele Puglisi.
URL: www.mat.ucm.es/~confexx/

19 – 21 **15th New Mexico Analysis Seminar**
Location: *University of New Mexico, Albuquerque, New Mexico.*
The 15th New Mexico Analysis Seminar will take place February 19-21, 2016 at the University of New Mexico in Albuquerque. This year's seminar will feature a minicourse from Christopher Sogge (Johns Hopkins University) on "Global Harmonic Analysis and the Concentration of Eigenfunctions". In addition to the principal lecture series, the conference allocates time for contributed talks by the participants. In the past we have had participants from more than 70 institutions, from 30 different states, and eight different countries, with the bulk of participants coming from the Southwest region. We anticipate to provide some travel and hotel support for participants to help defray costs. Preference will be given to graduate students and recent PhD graduates. More information on the seminar, along with registration information can be found at conference website.
URL:
www.math.unm.edu/conferences/15thAnalysis/

19 – 21 **Texas Geometry and Topology Conference**
Location: *Texas Christian University, Fort Worth, TX*
The Spring 2016 Texas Geometry and Topology Conference will be held February 19-21, 2016, at Texas Christian University in Fort Worth, Texas. Financial support is available for travel and local expenses, with graduate students and recent Ph.D.s especially encouraged to apply. Preference for financial support will go to those registered by January 22. Confirmed Speakers: Christian Bär (University of Potsdam) Ruth Charney (Brandeis University) David Damanik (Rice University) Jon Hauenstein (University of Notre Dame) Tara Holm (Cornell University) Alejandro Uribe (University of Michigan) Guoliang Yu (Texas A&M University)
URL: faculty.tcu.edu/gfriedman/tgtc2016/

22 – 26 **Workshop on Analysis, Geometry and Mathematical Relativity: a celebration of Robert Bartnik's 60th birthday**
Location: *Monash University, Melbourne, Australia.*
This workshop is both an event in the Monash Summer Visitor Program and an occasion to celebrate Robert Bartnik's 60th birthday. In line with Robert's research interests, the focus will be on topics in analysis, geometry, and mathematical relativity. The workshop is open to anyone with an interest in analysis, geometry or general relativity. There is no registration fee, but all participants must register. Early registration is strongly recommended as the total number of participants is limited by the capacity of the lecture theatre.
Deadline for registration is December 22, 2015.
URL: agmr.eventbrite.com.au

22 – 26 **Workshop on Positivity and Valuations**
Location: *Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain* The aim of the workshop is to bring together algebraic geometers working on valuation theory or interested in the use of valuations for the study of projective algebraic varieties; the main focus is going to be the relationship between valuations and positivity properties of line and vector bundles. The event will consist of a limited number of talks (roughly 10-15) by distinguished invited speakers, which will take place during the morning sessions, and whose goal is to stimulate further discussion. The afternoons will be devoted to performing research in working groups on topics in the area of the workshop chosen by the participants at the beginning of the venue.
URL: www.crm.cat/en/Activities/Curs_2015-2016/Pages/PositValuations.aspx|

22 – March 4 **CIMPA-CIMAT-ICTP School on Moduli of Curves**
Location: *CIMAT, Guanajuato, Mexico* The courses will be in English Algebraic Curves and their Moduli Spaces Higher Dimensional Varieties and their Moduli Spaces Gometric Invariant Theory and Bridgeland Stability Minimal Model Program/Birational Geometry and Topology of Mg Moduli and Degeneratons of Algebraic Curves via Tropical Geometry.
Registration/Deadline Registration is now open (deadline: October 25, 2016).
URL: `www.cimpa-icpam.org/ecoles-de-recherche/ecoles-de-recherche-2016/liste-chronologique-des-ecoles-de/article/moduli-of-curves-736?lang=fr`

March 2016

01 – July 31 **Harmonic Analysis**
Location: *Ouargla University*
Studies in lie algebra and its representation; group theory.
URL: `www.univ-ouargla.dz/index.php/fr/`

1 – July 31 **Intensive Research Programme on Constructive Approximation and Harmonic Analysis**
Location: *Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain.*
This research program focuses on the interaction between constructive approximation and harmonic analysis. The aim is to facilitate broader and deeper interaction among researchers in these fields. Activities in the Research Programme are:
Workshop on Function Spaces and High-dimensional Approximation from May 2 to 6, 2016
Advanced course on Constructive Approximation and Harmonic Analysis, from May 30 to June 4, 2016
Conference on Harmonic Analysis and Approximation Theory (HAAT 2016), from June 6 to 10, 2016
URL: `www.crm.cat/en/Activities/Curs_2015-2016/Pages/IRP-Approximation-and-Harmonic-Analysis.aspx`

10 – 12 **Cluster Algebras and Geometry**
Location: *University of Muenster, Muenster, Germany.*
Workshop on Cluster Algebras and Geometry.
Main speakers Include Karin Erdmann, Anna Felikson, Osamu Iyama, Peter Jorgensen, Bernard Leclerc (tbc), Idun Reiten, Pavel Tumarkin (tbc).
Organizers Karin Baur (University of Graz), Lutz Hille (University of Muenster).
URL: `wwwmath.uni-muenster.de/reine/u/lutz.hille/GRUPPE/cluster2016/`

17 – 21 **2016 Gainesville International Number Theory Conference**
Location: *University of Florida, Gainesville, Florida.*
An international number theory conference with topics that include, Analytic Number Theory, q-Series, Partitions and Modular Forms, Algebraic Number Theory, and Irrationality and Transcendence. There will be special lectures by Manjul Bhargava, James Maynard and Hugh Montgomery. This conference will celebrate Krishna Alladi's 60th birthday. See the website for more details.
URL: `www.qseries.org/fgarvan/alladi60.html`

April 2016

25 – 29 **AIM Workshop: Open textbooks in MathBook XML**
Location: *American Institute of Mathematics, San Jose, California.*
This workshop, sponsored by AIM and the NSF, will bring together teams of authors of open source mathematics textbooks, developers of technical tools supporting authoring of these books, and experienced editors providing reviews, advice, and guidance. During the workshop, authors will begin by converting existing book projects from LaTeX to a highly structured format. The textbooks will then easily convert to print, PDF, HTML, EPUB, and Jupyter Notebooks.
URL: `aimath.org/workshops/upcoming/mathbookxml`

May 2016

2 – 4 **Workshop "Hilbert's Sixth Problem"**
Location: *University of Leicester, Leicester, United Kingdom.*
Hilbert's 6th problem gives a unique framework for collaborations of multiscale analysis with other fields of the mathematical sciences, from probability, logic and abstract algebra to mathematical physics. The main aims of the workshop are: 1. To facilitate interdisciplinary discussion across key mathematical and physical disciplines involved in solution of Hilbert's sixth problem about the state of the art. 2. To synthetize an integral interdisciplinary point of view on Hilbert's sixth problem and renew the programmatic call in the light of the latest achievements. 3. To provide guidance to early career researchers via an indication of future research directions in Hilbert's sixth problem. 4. To disseminate the modern achievements and renewed programmatic call in a series of review publications.
URL: `www.math.le.ac.uk/people/ag153/homepage/HilbertWeb/HilbertWorkshop2016.htm`

2 – 6 **Workshop on Function spaces and high-dimensional approximation**
Location: *Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain.*
The workshop will promote the modern research connecting Fourier analysis, function spaces, and their links to modern developments in the high-dimensional approximation theory.The purpose of this meeting is to bring together the leading experts, and disseminate the latest progress in research, and in the interaction of these fields. The topics of the workshop include: · Function spaces and Embedding/Duality/Extension theorems · Smoothness of multivariate functions · Fourier transforms inequalities · Weighted inequalities · Hyperbolic cross approximation · Sparse approximation
URL: `www.crm.cat/en/Activities/Curs_2015-2016/Pages/Function-Spaces.aspx`

08 – 14 **Algebra, Geometry and Topology of Singularities**
Location: *Galatasaray University, Istanbul, Turkey*
This is an international workshop intending to give a panorama on Singularity Theory and bring together the specialists and the young researchers on the subject. The talks will be focused on the current results of the different aspects of the Singularities, such as the algebraic, geometric and topological studies.
URL: `math.gsu.edu.tr/singularities2016/`

9 – 11 **Advanced Course by Jill Pipher**
Location: *Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain.*
These advanced courses are devoted to different topics in connection with High-dimensional approximation, Harmonic Analysis, and closed areas, such as PDE's. The courses will focus on the problems which have attracted a lot of attention in the recent years.
URL: `www.crm.cat/en/Activities/Curs_2015-2016/Pages/IRP-Approximation-and-Harmonic-Analysis.aspx`

9 – 12 **International Meeting on Applied Mathematics in Errachidia**
Location: *Errachidia, Morocco.*
The aim of the International Meeting on Applied Mathematics is to bring researchers and professionals to discuss recent developments in both theoretical and applied mathematics, to create the knowledge exchange platform between mathematicians. The conference is broad-based that covers all branches of engineering sciences, mathematics and interdisciplinary researches.
URL:
`sites.google.com/site/imamerrachidia2016/home`

16 – 20 **ICERM Workshop: Effective and Algorithmic Methods in Hyperbolic Geometry and Free Groups**
Location: *ICERM at Brown University, 121 South Main St., Providence, Rhode Island.*
While much work remains, both computation and theory have progressed. Fast algorithms have been developed for running computations in the mapping class group and other finitely generated groups, as well as for recognizing certain types 3-manifolds and knot and link complements up to homeomorphism. These have been supplemented by a new wave of constructive theorems which explicitly relate the algebra of the fundamental group of a hyperbolic 3-manifold to its geometry, and to the geometry of various simplicial complexes, such as the curve complex. This ICERM workshop will focus on such advances, as well as on the development of new algorithms and extension of algorithmic techniques to the study of free groups. The workshop aims to bring together researchers from a broad range of related fields to work towards a more effective and quantitative understanding of 3-manifold topology, geometric group theory, and hyperbolic geometry.
URL: `icerm.brown.edu/topical_workshops/tw16-2-hgfg/`

19 – 23 **3rd International Conference on Recent Advances in Pure and Applied Mathematics(ICRAPAM 2016)**
Location: *La Blanche Resort Hotel, Bodrum, Mugla-Turkey*
3rd International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM 2016) will be held at La Blanche Resort & Spa, Bodrum, Mugla-Turkey, 19-23 May, 2016. This year ICRAPAM is supported by Istanbul Commerce University, Istanbul Medeniyet University and Institute of Mathematics of National Academy of Science of Ukraine. INVITED SPEAKERS -Prof. Jeff Connor, Ohio University, USA -Prof. A. M. Samoilenko, Inst. of Math. of NAS, Ukraine -Prof. Ghiocel Groza, Tech. Uni. Civil Engineering Bucharest, Romania -Prof. Werner Varnhorn, Universitat Kassel, Germany -Prof. F. Abdullayev, Mersin Uni.,Turkey -Prof. Ljubisa D.R. Kocinac, Uni. of Nis, Serbia -Prof. Reza Saadati, Iran Uni. of Sci. and Tech., Iran
URL: `www.icrapam.org`

23 – 25 **Workshop on Software and Applications of Numerical Algebraic Geometry**
Location: *University of Notre Dame, Notre Dame, Indiana.*
This workshop will focus on solving systems of polynomial equations using numerical algebraic geometry. It will introduce the participants to algorithms of numerical algebraic geometry so that they can use and develop variations to address their own research problems of interest. Progress related to the redevelopment of Bertini along with an introduction for creating solving modules will also be discussed. Finally, this workshop will bring together researchers from a variety of application fields to discuss successes and current challenges related to solving systems of polynomial equations.
URL: `www.nd.edu/~jhauenst/Workshop2016/`

23 – 26 **Mixed Integer Programming Workshop (MIP 2016)**
Location: *University of Miami, in Coral Gables, FL*
The 2016 Mixed Integer Programming workshop will be the thirteenth in a series of annual workshops held in North America designed to bring the integer programming community together to discuss very recent developments in the field. The workshop consists of a single track of invited talks and features a poster session that provides an additional opportunity to share and discuss recent research in MIP.
URL:
`https://sites.google.com/site/mipworkshop2016`

23 – June 3 **Advanced School on Geometric Group Theory and Low-Dimensional Topology: Recent Connections and Advances**
Location: *ICTP, Trieste, Italy.*
The motivation for this advanced school is to expose students, postdocs and researchers to various key roles that geometric group theory has played in recent advances in low-dimensional topology and geometry. These include (but not limited to) the role of virtually special groups, representations of Kleinian groups in SL(2,C) and generalizations (e.g. Higher Teichmuller Theory), the Mapping

Class Group and its recent role in low dimensional geometry and topology and group theoretic connections with Heegaard Floer theory through left-orderability.
URL: indico.ictp.it/event/7646/

23 – June 03 **Group Theory and P Groups**
Location: *Ouargla University, Algeria*
Group Theory; Group Cohomology.
URL: www.univ-ouargla.dz/index.php/fr/
URL: www.univ-ouargla.dz/index.php/fr/

24 – 27 **Combinatorial and additive number theory (CANT 2016)**
Location: *CUNY Graduate Center, New York, New York.*
This is the fourteenth in a series of annual workshops sponsored by the New York Number Theory Seminar on problems and results in combinatorial and additive number theory and related parts of mathematics. The list of speakers with abstracts of their talks will be posted on the website www.theoryofnumbers.com There are daily sessions on open problems, and graduate students are encouraged to attend. Proceedings of the conference have been published by Springer. Mathematicians who would like to speak at the meeting should submit a title and abstract to: melvyn.nathanson@lehman.cuny.edu
URL: www.theoryofnumbers.com

27 – 29 **15th Panhellenic Conference of Mathematics Analysis**
Location: *Department of Mathematics and Applied Mathematics, University of Crete, Heraklion, Crete, Greece.*
This is the central conference of Mathematical Analysis (in a broad sense) in Greece and takes place every couple of years.
Topics include Harmonic and Complex Analysis, Functional Analysis, Operator Theory, Dynamical Systems, Differential Equations, Numerical Analysis.
Invited Speakers Haim Brezis (to be confirmed), Tony Carbery, Vassilios Dougalis, Nikos Frantzikinakis, Aristides Katavolos, Emmanouil Milakis, Grigoris Paouris.
URL: fourier.math.uoc.gr/pcma2016/

30 – June 4 **Advanced Course on Constructive Approximation and Harmonic Analysis**
Location: *Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain.*
These advanced courses are devoted to different topics in connection with High-dimensional approximation, Harmonic Analysis, and closed areas, such as PDE.s. The courses will focus on the problems which have attracted a lot of attention in the recent years.?
URL: www.crm.cat/en/Activities/Curs_2015-2016/Pages/Constructive-Approximation.aspx

30 – June 4 **International conference "Complex Analysis and Related Topics"**
Location: *The Ivan Franko National University of Lviv, Lviv, Ukraine.*
The following topics will be presented on the conference: complex analysis of one variable; complex analysis of several variables.
URL: analysis16.mathlviv.org.ua/

June 2016

2 – 4 **Representation Theory Conference**
Location: *Uppsala University, Uppsala, Sweden.*
Organizer Volodymyr Mazorchuk.
Invited Speakers Maria Gorelik, Stefan Kolb, Julian Külshammer, Erhard Neher, Alisair Savage, Peng Shan, Sarah Scherotzke, Jan Stovicek.
Contact rt2016@math.uu.se
URL:
www.math.uu.se/forskning/algebra-och-geometri/seminariet-algebra-och-geometri/konferens-representationsteori-2015/

5 – 10 **XII International Conference on Approximation and Optimization in the Caribbean**
Location: *Havana University, Havana, Cuba.* This conference is the twelfth of a series founded in 1987 and previously organized in different countries around the Caribbean area. The goal is to support high level mathematical research and education on Approximation, Optimization and related topics. It includes invited lectures, tutorials, mini-symposia, and contributed talks.
URL: gama.uc3m.es/appopt/

06 – 09 **25th International Workshop on Matrices and Statistics (IWMS'2016)**
Location: *University of Funchal, Madeira (Portugal)*
The purpose of the workshop is to bring together researchers sharing an interest in a variety of aspects of statistics and its applications as well as matrix analysis and its applications to statistics, and offer them a possibility to discuss current developments in these subjects. The workshop will bridge the gap among statisticians, computer scientists and mathematicians in understanding each other's tools. We anticipate that the workshop will stimulate research, in an informal setting, and foster the interaction of researchers in the interface between matrix theory and statistics Some emphasis will be put on related numerical linear algebra issues and numerical solution methods, relevant to problems arising in statistics. The workshop will include invited talks and special sessions devoted to cutting edge research topics.
URL: www.iwms.ipt.pt

6 – 10 **Conference on Harmonic Analysis and Approximation Theory (HAAT 2016)**
Location: *Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain.*
The main goal of the conference HAAT2016, besides presenting the recent developments in Constructive Approximation and Harmonic Analysis, is promoting their integration and research exchange. In particular, the conference promotes the idea of applying the research tools from one research area for problems in the other area. As a consequence, such an integration will possibly result in solving many applied problems in other areas of science.
URL: www.crm.cat/en/Activities/Curs_2015-2016/Pages/HAAT2016.aspx

6 – 10 **Time-Frequency Analysis and Related Topics**
Location: *Strobl, Austria*
Topics include function spaces, time-frequency analysis and Gabor analysis, sampling theory and compressed sensing, pseudodifferential operators and Fourier integral operators, numerical harmonic analysis, abstract harmonic analysis, and applications of harmonic analysis. Plenary Speakers: Albrecht Böttcher [TU Chemnitz] Anders Hansen [University of Cambridge] Arieh Iserles [University of Cambridge] Gitta Kutyniok [TU Berlin] Rachel Ward [UT Austin] Maciej Zworski [University of California, Berkeley]
URL: `nuhag.eu/strobl16`

12 – 19 **54th International Symposium on Functional Equations**
Location: *Hotel Aurum, Hajdúszoboszló, Hungary.*
Topics Functional equations and inequalities, mean values,functional equations on algebraic structures, Hyers-Ulam stability, regularity properties of solutions, conditional functional equations, iteration theory; applications of the above.
Organizers Zsolt Páles, Inst. of Math., Univ. of Debrecn, 4010 Debrecen, Hungary; `pales@science.unideb.hu`
Scientific Committee J. Aczél (Honorary Chair; Waterloo, ON, Canada), W. Benz (Hamburg,Germany), Z. Daróczy (Debrecen, Hungary), L. Reich (Graz, Austria). Honorary Members: R. Ger (Chair, Katowice, Poland), Zs. Páles (Debrecen, Hungary), M. Sablik (Katowice, Poland), J. Schwaiger (Graz, Austria), and A. Sklar (Chicago, Illinois).
Information Participation at these meetings is by invitation only. Those wishing to be invited to this or one of the following meetings should send details of their interest to: Roman Ger, Inst. of Math., Silesian Univ., Bankowa 14, PL-40-007 Katowice, Poland; `romanger@us.edu.pl` before January 15, 2016.
URL: `isfe.up.krakow.pl/54/index.php`

13 – 17 **ICERM Workshop: Algorithmic Coding Theory**
Location: *ICERM at Brown University, 121 South Main St., Providence, Rhode Island.*
The goal of this workshop is to bring together researchers from several different communities , 2016 - applied math, theoretical computer science, communications and electrical engineering , 2016 - to focus on a few quickly-moving topics in algorithmic coding theory. Topics will include: Polar codes Codes for interactive communication Local decoding and coding for distributed storage Non-malleable codes.
URL:
`icerm.brown.edu/topical_workshops/tw16-3-act/`

13 – 17 **MURPHYS-HSFS-2016**
Location: *Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain.*
Centre de Recerca Matemàtica, Barcelona, and the Collaborative Research Center 910, Berlin are pleased to announce the joint international multidisciplinary workshop MURPHYS-HSFS-2016. The workshop, devoted to mathematical theory and applications of the multiple scale systems and systems with hysteresis, will take place at the Centre de Recerca Matemática, in a beautiful suburb of Barcelona. MURPHYS 2016 (Multi-Rate Processes and Hysteresis) is the 8th workshop that continues a series of biennial conferences focused on multiple scale phenomena, singular perturbations, phase transitions and hysteresis phenomena occurring in mathematical, physical, economical, engineering and information systems.
URL: `www.crm.cat/en/Activities/Curs_2015-2016/Pages/MURPHYS.aspx`

13 – 22 **Recent Advances in Complex Differential Geometry**
Location: *(I.M.T) Toulouse University, Toulouse, France.*
Recent advances in complex differential geometry is a two-week program covering a wide range of topics in both Kähler and non-Kähler geometry and is part of the CIMI thematic trimester Complex Geometry and Beyond. Lectures and seminars will take place at the Institut de Mathématique de Toulouse (Toulouse, France). Week 1, from Monday June 13th 2016 to Friday June 17th 2016 is a a summer school. Week 2, from Friday June 17th 2016 to Wednesday June 22nd 2016 is an international conference. Details are available on the website of the conference.
URL: `www.cimi.univ-toulouse.fr/complex-geometry-and-beyond/en/recent-advances-complex-differential-geometry`

13 – 24 **Harmonic Analysis and Elliptic Equations on real Euclidean Spaces and on Rough Sets**
Location: *Mathematical Sciences Research Institute, Berkeley CA*
The goal of the workshop is to present harmonic analysis techniques in R^n (the "flat" setting), and then to show how those techniques extend to much rougher settings, with application to the theory of elliptic equations. Thus, the subject matter of the workshop will introduce the students to an active, current research area: the interface between harmonic analysis, elliptic PDE, and geometric measure theory.
URL: `www.msri.org/summer_schools/776`

14 – 17 **2016 World Conference on Natural Resource Modeling**
Location: *Flagstaff, AZ*
The 2016 International Conference of the Resource Modeling Association will be held June 14 – 17 in Flagstaff, Arizona, U.S.A. "Quantitative Modeling for Managing Natural Resources in an Era of Climate Change" is the theme of this conference. Four keynote speakers will address the use of mathematical models to study biodiversity and the effects of climate change on various ecosystems and offer recommendations for managing them in a sustainable manner. In addition to the keynote presentations there will be contributed paper sessions. Topics that will be considered at the conference are water resource management, economic issues with managing natural resources, fisheries (fresh and salt water), biodiversity, wildlife management, forest management, and protection of ecosystems.
URL: `resourcemodeling.org`

27 – July 1 **ICERM Workshop: Illustrating Mathematics**
Location: *ICERM at Brown University, 121 South Main St., Providence, Rhode Island.*
Research and outreach are normally thought to divide mathematics in two. This separation is, however, completely artificial; it is impossible to "find" a mathematical idea without explaining it. Exploration and exposition are two sides of the same coin. One striking example of this is the epochal work of William Thurston; often his theorems were accompanied by pictures, and computer programs, illustrating the underlying ideas. The goal of this conference is to bring together mathematicians from a range of fields, and practitioners from the digital arts (animation, 3D printing, laser cutting, CNC routing, virtual reality, computer games, etc). The attendees will share their expertise in mathematics and with the procedural tools used to illustrate mathematics. In addition to talks in the traditional style, we plan to hold several workshops to train attendees about a variety of digital media, in particular 3D printing.
URL:
`icerm.brown.edu/topical_workshops/tw16-1-im/`

27 – July 1 **3rd Barcelona Summer School on Stochastic Analysis**
Location: *Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain.*
The Barcelona Summer School on Stochastic Analysis is a one-week scientific activity consisting mainly of courses addressed to PhD students and young researchers on current research topics in Stochastic Analysis. Selected participants are also given the opportunity to deliver short talks or to display posters. The courses in 2016 will be the following (a detailed description is given below) On Approximations of Stochastic PDEs, by István Gyöngy (University of Edinburgh, UK) Regularity Structures, by Martin Hairer (University of Warwick, UK).
URL: `www.crm.cat/en/Activities/Curs_2015-2016/Pages/3rd-BCN-Summer-School-on-Stochastic-Analysis.aspx`

27 – July 1 **2016 EWM-EMS Summer School - Geometric and Physical aspects of Trudinger-Moser type inequalities**
Location: *Institut Mittag-Leffler, Djursholm, Sweden.*
Starting from the state of art, the school aims at promoting new directions in sharp limiting inequalities of Trudinger-Moser types and applications to problems arising from geometry and physics. Professors Hajer Bahouri, Sun-Yung Alice Chang and Gabriella Tarantello will present three courses focusing on this topic, along with additional talks given by some of the participants, as well as a poster session. These supplementary research activities will complement the main courses and motivate further discussion among participants. Students, post-docs and other young researchers will have the opportunity to get up to date with new research advances, or to enter this fascinating field of research.
Deadline For applications November 30, 2015.
URL:
`sites.google.com/site/2016ewmemssummerschool`

30 – July 1 **AGMP 2016 Algebraic Geometry and Mathematical Physics**
Location: *University of Tromso, Tromso, Norway*
The conference is in honor of Arnfinn Laudal on his 80th birthday. The conference will consist of 4 invited lectures: Alain Connes, Collège de France, IHEA Gert-Martin Greuel, University of Keiserslautern Ulf Persson, Chalmers Lê Dung Tráng, Université de Marseille. Also, there will be contributed presentations. All talks will be plenary. The official language of conference is English. The conference will cover, but is not limited to, the main themes: Algebra, Geometry, dynamical symmetries and conservation laws, mathematical physics and applications. This in particular includes the themes: Deformation theory and quantization, Hom-algebras and n-ary algebraic structures, Hopf algebra, integrable systems and related mathematical structures, jet theory and Weil bundles, Lie theory and applications, noncommutative geometry, Lie algebras, and more. The conference is aimed for a broad audience of researchers and advanced students.
URL: `site.uit.no/agmp/`

July 2016

4 – 9 **Third International Conference on New Trends in the Applications of Differential Equations in Sciences (NTADES2016)**
Location: *The conference will held in the Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, Sofia, Bulgaria*
ThirdInternational Conference on New Trends of Differential Equations in Sciences is organized by the Department of Differential Equations and Mathematical Physics at Institute of Mathematics and Informatics, Bulgarian Academy of Sciences (www.math.bas.bg/ntades/). Differential equations have a lot of applications in different scientific fields. This conference will be devoted to such applications. A number of phenomena in nature (physics, chemistry, biology) and in society (economics) result in problems leading to study of linear and nonlinear differential equations. The conference consists of plenary, invited and contributed papers. Prospective authors are invited to submit their papers on topics included but not limited to applications of differential equations in: Mathematical Physics; Mathematical Finance; Mathematical Biology; Nonlinear waves; Mechanics; Fractional Analysis; Neuroscience. The proceedings will be published in peer reviewed journal.
URL: `www.math.bas.bg/ntades/`

4 – 15 **School on Algebraic, Geometric and Probabilistic Aspect of Dynamical Systems and Control Theory**
Location: *ICTP, Trieste, Italy.*
This is a follow-up to two separate schools which were held at ICTP in 2011 and 2013. Both of them in the broad area of Dynamical Systems, the first was essentially a Brazilian-Iranian school and the second a joint ICTP-SISSA-Moscow school. The school will cover some topics in Dynamical Systems and Control Theory from various inter-related perspectives. In particular it will highlight the connections between the study of Dynamical Systems

from an algebraic, a geometrical and a probabilistic (ergodic) point of view.
URL: `indico.ictp.it/event/7647/`

4 – 22 **EAUMP-ICTP School in Number Theory**
Location: *EAUMP, Kigali, Rwanda.*
The proposed school is the next one in a series of schools organized under the East African Universities Mathematics Programme (EAUMP), which started in 2004. This programme has core funding from the International Science Programme (ISP) of the Government of Sweden, and has as one of its aims to improve the pure mathematics Masters and Postgraduate training in the Eastern Africa region. The participating Universities of the EAUMP are University of Dar es Salaam, Tanzania; University of Nairobi, Kenya; University of Zambia; Makerere University, Uganda; University of Rwanda (recently merged from National University of Rwanda and Kigali Institute of Science and Technology), Rwanda.
URL: `indico.ictp.it/event/7650/`

10 – 15 **28th International Biometric Conference**
Location: *Victoria Conference Centre, Victoria, BC, Canada.*
The International Biometric Conference (IBC) is dedicated to recent developments and application of Biometry and Statistics in many different fields of life and environmental sciences. The IBC is held every two years in one of the 34 regions of the International Biometric Society (IBS, `www.biometricsociety.org`) The IBS has 6,000 members worldwide, and the conference attracts statisticians and students from around the world who are interested in the development and application of statistical and mathematical theory and methods to the biosciences. Numerous opportunities for student prizes and awards. Invited Sessions and Short Courses are confirmed. Call for Contributed Sessions ends January 6, 2016. Early Registration ends April 15, 2016.
URL: `www.biometricconference.org`

10 – 22 **Summer Graduate School: An Introduction to Character Theory and the McKay Conjecture**
Location: *Mathematical Sciences Research Institute, Berkeley, CA.*
Character Theory of Finite Groups provides one of the most powerful tools to study groups. In this course we will give a gentle introduction to basic results in the Character Theory, as well as some of the main conjectures in Group Representation Theory, with particular emphasis on the McKay Conjecture.
URL: `www.msri.org/summer_schools/767`

11 – 15 **The 20th Conference of the International Linear Algebra Society (ILAS)**
Location: *KU Leuven, Leuven, Belgium.*
The 20th ILAS conference takes place in Belgium.
Plenary speakers Koenraad Audenaert, Pierre Comon, Paul van Dooren, Bruno Iannazzo, Monique Laurent, Elizabeth Meckes, Pablo A. Parrilo (LAA speaker, supported by Elsevier), Andre Ran, Fernando de Teran (SIAG/LA speaker). The current list of invited minisymposia is Data-Driven Model Reduction by Athanasios C. Antoulas, Matrix Equations by Peter Benner and Beatrice Meini, Matrix Inequalities and Operator Means by Jean-Christophe Bourin and Takeaki Yamazaki, Linear Algebra and Quantum Computation by Chi-Kwong Li, Raymond Sze, and Yiu Tung Poon, Image Restoration and Reconstruction by Marco Donatelli and Jim Nagy, Matrix Methods in Network Analysis by Francesco Tudisco and Dario Fasino, Low-Rank Tensor Approximations by Andre Uschmajew and Bart Vandereycken, Matrix methods for solving systems of multivariable polynomial equations by Bernard Mourrain, Marc Van Barel, and Vanni Noferini.
URL: `ilas2016.cs.kuleuven.be`

11 – 15 **Quantum Algebras, Quantum Integrable Models and Quantum Information**
Location: *The Sven Lovén Centre for Marine Sciences of the University of Gothenburg, Kristineberg, Sweden.*
The conference is a satellite event to the 7th European Congress of Mathematics (ECM) in Berlin. The main purpose of the conference is to stimulate and promote interactions between three major research areas: (quantum) algebra, including (quantum) geometry, (quantum) integrable models and (quantum) information theory. This conference continues the following series of satellite conferences to the European Congresses of Mathematics: Noncommutative Geometry and Representation Theory in Mathematical Physics. Satellite conference to the 4th ECM in Stockholm (2004). Noncommutative Structures in Mathematics and Physics. Satellite conference to the 5th ECM in Amsterdam (2008). 3Quantum: Algebra Geometry Information. Satellite conference to the 6th ECM in Krakow (2012).
URL: `science.gu.se/qqq2016`

11 – 21 **Summer School in Probability**
Location: *Northwestern University, Evanston, Illinois*
The Summer School in Probability, to be held in July 2016, at Northwestern University, will include six introductory mini-courses on various topics within probability, aimed at graduate students and recent PhDs.
URL: `www.math.northwestern.edu/~auffing/summer.html`

12 – 15 **International Conference ON Analysis and Its Applications (ICAA-2016)**
Location: *Ahi Evran University, Kirsehir/Turkey*
Aim and Objectives: The purpose of the conference is to bring together experts and young analysts from all over the world working in analysis and its applications to present their researches, to exchange new ideas, to discuss challenging issues, to foster future collaborations and to interact with each other. Topics to be covered include (but are not limited to): Operator Theory, Fixed Point Theory and its Applications, Applications in Differential Equations and Partial Differential Equations, Inequalities, Algorithms, Set-valued Analysis,Variational Analysis including Variational Inequalities, Optimization and its Applications, Convex Analysis and its Applications, Smooth and non-smooth Analysis, Geometry of Banach Spaces, Fourier Analysis, Modern Methods in

Summability and Approximation, Sequence Spaces and Matrix Transformations, Measure of Noncompactness.
URL: www.icaa2016.org/

18 – 20 **ICERM Workshop: Stochastic numerical algorithms, multiscale modelling and high-dimensional data analytics**
Location: *ICERM at Brown University, 121 South Main St., Providence, Rhode Island.*
The workshop will focus on recent advances in the design of rigorous discrete-dynamics based sampling approaches, algorithms development for large-scale data analysis and stochastic dynamical systems, scalable and rigorous numerical methods for stochastic differential equations and sampling from high-dimensional distributions, and exploitation of low-dimensional structures in high-dimensional data and stochastic dynamical systems for model reduction and efficient Monte-Carlo schemes. The meeting will foster the interchange and deployment of the latest methodologies for sampling and approximation.
URL:
icerm.brown.edu/topical_workshops/tw16-5-sna/

18 – 22 **International Workshop on Operator Theory and Applications**
Location: *Washington University, St. Louis, Missouri.*
IWOTA's primary objective is to bring together researchers in the area of operator theory and related fields, including applications in engineering and mathematical physics (such as differential and integral equations, interpolation theory, system and control theory, signal processing, scattering theory). These meetings provide opportunities for all participants to present their own work in contributed talks, to interact with other researchers from around the globe, and to broaden their knowledge of the field by hearing the invited lectures of eminent mathematicians. IWOTA emphasizes cross-disciplinary interaction between mathematicians, electrical engineers and mathematical physicists.
URL: openscholarship.wustl.edu/iwota2016/

18 – 29 **Electronic Structure Theory**
Location: *Lawrence Berkeley National Laboratory, University of California, Berkeley, California.*
Ab initio or first principle electronic structure theories, particularly represented by Kohn-Sham density functional theory (KS-DFT), have been developed into workhorse tools with a wide range of scientific applications in chemistry, physics, materials science, biology etc. What is needed are new techniques that greatly extend the applicability and versatility of these approaches. At the core, many of the challenges that need to be addressed are essentially mathematical. The purpose of the workshop is to provide graduate students a self-contained introduction to electronic structure theory, with particular emphasis on frontier topics in aspects of applied analysis and numerical methods.
URL: www.msri.org/summer_schools/778

25 – August 5 **Summer Graduate School: Chip Firing and Tropical Curves**
Location: *Mathematical Sciences Research Institute, Berkeley, California.*
Tropical geometry uses a combination of techniques from algebraic geometry, combinatorics, and convex polyhedral geometry to study degenerations of algebraic varieties; the simplest tropical objects are tropical curves, which one can think of as "shadows" of algebraic curves. Linear equivalence of divisors on an abstract tropical curve is determined by a simple but rich combinatorial process called "chip firing", which was discovered independently in the discrete setting by physicists and graph theorists. From a pedagogical point of view, one can view tropical curves as a combinatorial model for the highly analogous but more abstract theory of algebraic curves, but there is in fact much more to the story than this: one can use tropical curves and chip firing to prove theorems in algebraic geometry and number theory. This field is relatively new, so participants will have the opportunity to start from scratch and still get a glimpse of the cutting edge in this active research area.
URL: www.msri.org/summer_schools/777

August 2016

1 – 5 **ICERM Workshop: Cycles on Moduli Spaces, Geometric Invariant Theory, and Dynamics**
Location: *ICERM at Brown University, 121 South Main St., Providence, Rhode Island.*
An integral part of the workshop is a series of three mini-courses on the following subjects: Cycles and birational geometry of moduli spaces of curves, Geometric invariant theory, with applications to constructions of moduli spaces, and affine invariant manifolds and invariants in Teichmüller dynamics. The mini-courses will be aimed primarily at non-experts and will benefit graduate students and early career researchers in related areas, who are particularly encouraged to apply to participate in the workshop.
URL:
icerm.brown.edu/topical_workshops/tw16-4-ms/

1 – 9 **Alterman Conference on Geometric Algebra and Summer School on Kähler Calculus**
Location: *University of Transilvania, Brasov, Romania*
This event comprises two parts, a Clifford Algebra (CA) Conference, and a summer school that promotes the Kaehler calculus (KC). This calculus is based on CA of differential forms and generalizes Cartan's calculus. It has direct application to relativistic quantum mechanics (QM) by replacing Dirac's equation with one for scalar-valued differential forms. Spinors then emerge as solutions with symmetry, antiparticles surge with the same sign of energy as particles, and operators are concomitants of processes rather than ad hoc creations. We shall deal with applications to mathematical analysis, like the replacing of Hodge's theorem with actual integration of the differential system that specifies Kaehler's exterior and interior derivatives (read curl and divergence). We shall also deal with an additional generalization to Clifford valued differential forms. It takes us beyond Dirac type environments into one that seems appropriate for high energy physics and QM foundations.
URL: cs.unitbv.ro/~acami/index.htm

1 – 12 **School and Workshop on Homological Methods in Algebra and Geometry**
Location: *AIMS Ghana, Biriwa, Ghana.*
In collaboration with AIMS Ghana, The Abdus Salam International Centre for Theoretical Physics (ICTP) is organizing a "School and Workshop on Homological Methods in Algebra and Geometry". The school and workshop will be held at AIMS Ghana, from August 1-13. The first week will consist of three minicourses: Khovanov homology and categorification–Brent Everitt (University of York) Noncommutative algebraic geometry–Paul Smith (University of Washington) Geometric representation theory (TBC)–Geordie Williamson (MPI Bonn). The second week will comprise of research talks on these topics.
URL: `indico.ictp.it/event/7649/`

1 – 12 **CIMPA-ICTP Mathematics Research School on Lattices and Application to Cryptography and Coding Theory**
Location: *Ho Chi Minh University of Pedagogy, Ho Chi Minh City, Vietnam.*
Lattices play a central role in number theory and its applications. The aim of this school is to introduce participants to the ubiquity of lattices in number theory, algebra, arithmetic algebraic geometry, cryptography and coding theory. The theory of lattices will be developed from its very beginning and the basic notions required for the applications in number theory, algebra, arithmetic algebraic geometry will be provided. Appearances of lattices that we intend to cover include: The natural lattices structures of Mordell-Weil groups and unit groups. Lie algebra root lattices. The lattice basis reduction algorithm "LLL", which as many applications to many areas of mathematics and finally the construction of the famous Leech lattice. On the applied side we plan to cover constructions of good error-correcting codes and of good sphere packings via dense lattices.
URL: `indico.ictp.it/event/7665/`

1 – 19 **School and Conference on Moduli Spaces, Mirror Symmetry and Enumerative Geometry**
Location: *ICTP, Trieste, Italy.*
Moduli spaces and enumerative geometry are important classical topics of algebraic geometry. In recent decades they have received important new input from theoretical physics, among others with the advent of mirror symmetry, which made surprising predictions for classical problems of enumerative geometry. Mirror symmetry has since developed further and is a subject of intensive study. Many new powerful concepts, tools and techniques have been developed in recent years, in part in order to understand these predictions. These include moduli spaces of maps and Gromov-Witten invariants, virtual fundamental classes, Donaldson-Thomas and Pandharipande-Thomas invariants, stability conditions on derived categories and their moduli spaces. In this school we will introduce the participants to this important and fascinating subject and its powerful techniques. The topics of the school include Derived categories, Stability conditions on derived categories and applications to birational geometry.
URL: `indico.ictp.it/event/7648/`

September 2016

12 – 16 **School and Workshop on Geometric Correspondence of Gauge Theories**
Location: *ICTP, Trieste, Italy.*
The main focus is on recent developments on exact results in supersymmetric quantum field theories and superstrings on curved backgrounds and their impact on enumerative geometry, knot theory and representation theory of infinite dimensional algebras.
URL: `indico.ictp.it/event/7645/`

26 – 30 **International School on Dynamical Systems in Biology-ISDS 2016**
Location: *Strathmore University, Nairobi, Kenya.*
ISDS 2016 is the second school of a biennial series of international graduate schools on Mathematical Modelling in Biology and Medicine organized by IMS of Strathmore University. In an intense but informative session, the first school "International School on Mathematical Epidemiology (ISME)" took place from September 1-5, 2015, at the Strathmore University Madaraka Campus.
URL: `www.ims.strathmore.edu`

November 2016

11 – 12 **First EAI International Conference on Computer Science and Engineering**
Location: *Batu Feringhi, Penang Island, Malaysia.*
The requirements demands in problem solving have been increasingly in demand in exponential way. The new technologies in computer science and engineering have reduced the dimension of data coverage worldwide. Thus the recent inventions in ICT have inched towards reducing the gaps, and coverage of domains globally. The digging of information in a large data, and the soft-computing techniques have contributed a strength in prediction, analysis, and decision potentials in the niche areas such as Computer Science, Engineering, Management, Social Computing, Green Computing, Aviation, Finance, Telecom etc. Nurturing the research in Engineering and Computing are evident that finding a right pattern in the ocean of data.
URL: `compse-conf.org/2016/show/cf-calls`

July 2017

31 – August 04 **Recent Trends in Pure and Applied Mathematics**
Location: *"1 Decembrie 1918" University of Alba Iulia, Romania*
International Conference on Recent Trends in Pure and Applied Mathematics(TREPAM 2017) aims to bring together leading academic scientists, researchers and professionals to exchange and share their experiences and research results in several fields of pure and applied mathematics and their applications in science and technology.
URL: `trepam.uab.ro/`

August 2017

21 – 21 **Introductory Workshop: Phenomena in High Dimensions**
Location: *Mathematical Sciences Research Institute, Berkeley, California.*
This workshop will consist of several short courses related to high dimensional convex geometry, high dimensional probability, and applications in data science. The lectures will be accessible for graduate students.
URL: `www.msri.org/workshops/809`

April 2018

9 – 13 **Representations of Finite and Algebraic Groups**
Location: *Mathematical Sciences Research Institute, Berkeley, California.*
The workshop will bring together key researchers working in various areas of Group Representation Theory to strengthen the interaction and collaboration between them and to make further progress on a number of basic problems and conjectures in the field.
Topics Of the workshop include–Global-local conjectures in the representation theory of finite groups–Representations and cohomology of simple, algebraic and finite groups–Connections to Lie theory and categorification, and Applications to group theory, number theory, algebraic geometry, and combinatorics.
URL: `www.msri.org/workshops/820`