June 2012


4–6 International meeting on “Statistical Analysis: Theory and Applications” (JIASTA2012), Mohamed First University, Faculty of Science, Oujda, Morocco. (Apr. 2012, p. 589)


4–8 AIM Workshop: Cohomology bounds and growth rates, American Institute of Mathematics, Palo Alto, California. (May 2012, p. 713)

4–8 BIOCOMP2012 - Mathematical Modeling and Computational Topics in Biosciences, Hotel Lloyd’s Baia, Vietri sul Mare, Italy. (Jan. 2012, p. 103)

4–8 Geometry of Eigenvalues and Eigenfunctions, Centre de Recherches Mathématiques, Montréal, Canada.

Description: Geometric spectral theory focuses on the properties of eigenvalues and eigenfunctions of the Laplacian and other differential operators defined on geometric objects, such as Riemannian manifolds and Euclidean domains. Many problems in the field are motivated by questions originating in the study of real life phenomena: quantum-mechanical effects, vibration of membranes and plates, oscillations of fluids, etc.


4–8 Workshop on Geometry of Eigenvalues and Eigenfunctions, Centre de Recherches Mathématiques, Université de Montréal, Pavillon André-Aisenstadt, 2920, Chemin de la tour, 5th floor, Montréal (Québec), H3T 1J4 Canada. (Apr. 2012, p. 590)

6–8 Joint Conference of the Belgian, Royal Spanish, and Luxembourg Mathematical Societies, University of Liege, Belgium. (May 2012, p. 713)

6–9 Banach Spaces Workshop, University of Birmingham, Birmingham, United Kingdom. (May 2012, p. 713)

7–9 Quantum invariants of 3-manifolds, Institut de Recherche Mathématique Avancé, University of Strasbourg, France. (Nov. 2011, p. 1494)


10–16 Probability and Analysis, Mathematical Research and Conference Center of the Polish Academy of Sciences, Bedlewo, Poland. (Mar. 2012, p. 451)

11–13 “Games and Strategy in Paris”, held on the occasion of Sylvain Sorin’s 60th birthday, Institut Henri Poincaré, Paris, France. (May 2012, p. 713)

11–14 Ninth Advanced Course in Operator Theory and Complex Analysis, Faculty of Mathematics, University of Seville, Seville, Spain. (May 2012, p. 713)

11–14 Operator Theory, Analysis and Mathematical Physics, Centre de Recerca Matemàtica, Bellaterra, Barcelona. (May 2012, p. 713)


11–15 Mathematical Problems in Industry (MPI) Workshop 2012, University of Delaware, Newark, Delaware. (May 2012, p. 713)


Description: SIDE 10 is the tenth in a series of biennial conferences devoted to Symmetries and Integrability of Difference Equations and related topics: ordinary and partial difference equations, analytic difference equations, orthogonal polynomials and special functions, symmetries and reductions, difference geometry, integrable discrete systems on graphs, integrable dynamical mappings, discrete Painlevé equations, singularity confinement, algebraic entropy, complexity and growth of multivalued mapping, representations of affine Weyl groups, quantum mappings and quantum field theory on the space-time lattice.

Information: http://www2.nbu.edu.cn/lousenyue/.


12–15 5th Chaotic Modeling and Simulation International Conference (CHAOS2012), Athens, Greece. (Nov. 2011, p. 1494)


13–16 SIAM Conference on Nonlinear Waves and Coherent Structures (NW12), The University of Washington, Seattle, Washington. (Sept. 2011, p. 1186)


18–22 AIM Workshop: Dynamics of the Weil-Petersson geodesic flow, American Institute of Mathematics, Palo Alto, California. (Sept. 2011, p. 1186)

18–22 Conference on Geometry and Quantization of Moduli Spaces (2012 VBAC Conference), Centre de Recerca Matemàtica, Bellaterra, Barcelona. (May 2012, p. 714)

* 18–22 Mini-courses in Mathematical Analysis 2012, University of Padova, Padova, Italy.

Description: Following a long-standing tradition, the University of Padova is organizing the meeting “Mini-courses in Mathematical Analysis 2012”. The meeting will take place at “Torre Archimede”, a new building of the University of Padova in the city center. The program consists of four lecture courses delivered by invited speakers and a limited number of short communications. The meeting aims to introduce the participants to important current research fields in Mathematical Analysis. The meeting is particularly addressed not only to graduate students, postdocs and young researchers but also to well-established experts in Mathematical Analysis. In association with ISAAC - International Society for Analysis, its Applications and Computation.

Information: http://minicourses.dm.unipd.it/.


* 18–22 Workshop on analytic torsion and its applications, Department of Mathematics, Université Paris-Sud 91405, Orsay, France.

Description: The workshop, organized by Jean-Michel Bismut and Werner Müller, is devoted to analytic torsion, in holomorphic and real form. Special emphasis will be given to asymptotic torsion and its connection with torsion groups, torsion of hyperbolic manifolds, stratified spaces, the hypoelliptic Laplacian, and the trace formula.


18–29 Noncommutative Algebraic Geometry, Mathematical Sciences Research Institute, Berkeley, California. (Dec. 2011, p. 1617)

18–29 St. Petersburg School in Probability and Statistical Physics, Chebyshev Laboratory, St. Petersburg State University, Russia. (Mar. 2012, p. 452)

18–August 10 SummerICERM: Geometry and Dynamics, Institute for Computational and Experimental Research in Mathematics (ICERM), 121 South Main Street, Providence, Rhode Island. (Feb. 2012, p. 339)


* 25–27 **Workshop on Geometry of Interfaces and Capillarity**, Granada, Spain. (June 2012, p. 714)

* 25–29 **AIM Workshop: Hypergeometric motives**, International Centre for Theoretical Physics, Trieste, Italy. (Nov. 2011, p. 1494)

* 25–29 **3rd European Seminar on Computing (ESCO 2012)**, Pilsen, Czech Republic. (Nov. 2011, p. 1494)

* 25–29 **Conference on Differential and Difference Equations and Applications 2012 (CDDEA2012)**, Terchova (close to Zilina), Slovak Republic. (Apr. 2012, p. 590)


Description: The scope of this conference is Discrete Mathematics in a wide sense: graph theory, combinatorics, discrete geometry, computer science, and applications. One of the main goals is to stress connections with other areas, in particular: analysis, geometry, number theory, physics and probability. We ultimately aim to provide a panoramic view of deep mathematical developments in the area of discrete mathematics.


* 25–29 **European Seminar on Computing (ESCO 2012)**, Pilsen, Czech Republic. (May 2012, p. 714)


25–30 **Vth Workshop on Coverings, Selections, and Games in Topology**, Department of Mathematics, Seconda Università di Napoli, Caserta, Italy. (Jan. 2012, p. 104)


Description: The purpose of the conference is to bring together people from all branches of mathematics and science with interests in recurrence sequences, their applications and generalizations, and other special number sequences.


26–30 **International Conference “Probability Theory and its Applications” in Commemoration of the Centennial of Boris Vladimirovich Gnedenko**, Moscow State University, Moscow, Russia. (May 2012, p. 714)


27–29 **International Conference on Special Functions and Their Applications and Symposium on Life and Works of Ramanujan (XIIth Annual Conference of Society of Special Function and Their Applications)**, Department of Applied Mathematics and Humanities, S.V. National Institute of Technology, Surat 395 007, Gujarat, India. (Apr. 2012, p. 590)

27–29 **Low dimensional conformal structures and their groups**, Institute of Mathematics, Gdansk University, Gdansk, Poland. (Mar. 2012, p. 453)

**July 2012**

1-5 Mathematical Modeling of Microbiological Systems (M3S), Marburg, Germany. (May 2012, p. 714)

1-7 Workshop on geometric structures on manifolds and their applications, Castle Rauschholzhausen near Marburg, Germany. (Nov. 2011, p. 1494)

1-16 Special Case for Interpolation by Using Bézier Curve Numerically, Al-Muthana University, College of Science, Department of Mathematics & Computer Applications, Muthana, Iraq. (Feb. 2012, p. 339)


2-4 Superluminal Physics & Instantaneous Physics – as new trends in research (electronic conference), University of New Mexico, 200 College Road, Gallup, New Mexico. (Mar. 2012, p. 453)


2-6 12th International Conference on p-Adic Functional Analysis, University of Manitoba, Winnipeg, Canada. (Dec. 2011, p. 1618)

* 2-6 Exploratory Conference on the Mathematics of Biodiversity, Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain. 
Description: What is diversity? How do we measure it? This event will bring together life scientists and mathematicians to advance our understanding of diversity and its measurement. 1. Develop diversity measures that are sensitive to species similarity. 2. Diversity of partitioned communities: the mathematics of within-group and between-group diversity, including when inter-species similarity is taken into account. 3. What are the implications of a mathematically rigorous theory of diversity and differentiation for conservation biology, ecology, evolutionary theory, epidemiology and population genetics? 4. What can mathematicians learn from recent advances in diversity measurement? 

* 2-6 Manifolds of Metrics and Probabilistic Methods in Geometry and Analysis, Centre de Recherches Mathématiques, Montréal, Canada. 
Description: This workshop is devoted to random fields in geometry and physics that model the intuitive notion of a "random surface". The focus is on the geometric properties or morphology of random surfaces. The simplest random surfaces are defined by graphs of Gaussian random functions of various kinds, which have been used in physics to model water waves, speckle patterns in laser light, the mass distribution of the early universe or vacua of string theory. The study of their geometry is sometimes called statistical topography. The interesting geometric properties range from connectivity properties and curvatures of contour lines to the distribution and correlation of peak points to the structure of excursion sets. The "roughness" of the random surfaces corresponds to the Sobolev class of the random functions and ranges from spherical harmonics of fixed but large degree to the GFF (Gaussian free field), which is a random distribution rather than a function. 
Information: http://www.crm.umontreal.ca/2012/Metrics12/index_e.php.

2-6 Model Theory in Algebra, Analysis and Arithmetic, Cetraro, Italy. (Jan. 2012, p. 104)

* 2-6 Workshop Periods and Motives: A modern perspective on renormalization, Instituto de Ciencias Matemáticas, Madrid, Spain. 
Aim: This workshop aims to bring together leading experts in algebraic geometry, number theory, combinatorics and quantum field theory to report on recent developments in the study of motives and periods with an emphasis on the connections to physics. Young researchers can apply for financial support to attend the workshop at the website below (deadline May 15, 2012).

Speakers: J. Ayoub (Zurich), P. Belkale (NC Chapel Hill), S. Bloch (Chicago), C. Bogner (HU Berlin), P. Brosnan (Maryland), P. Cartier (IHES), O. Ceyhan (Amsterdam), D. Doryn (HU Berlin), C. Duhr (ETH Zurich), H. Gangl (Durham), A. Goncharov (Yale), D. Kreimer (HU Berlin) (tbc), M. Marcolli (Caltech), S. Paycha (Potsdam), L. Schneps (Paris 6), O. Schnetz (HU Berlin), M. Spradlin (Brown), G. Tabuada (MIT), A. Volovich (Brown), K. Yeats (Simon Fraser). There will be a special young researchers session. 
Sponsors: ICMAT Severo Ochoa Program and CNRS GDR Renormalisation. 

2-7 24th Conference in Operator Theory, West University Timisoara, Romania. (Nov. 2011, p. 1495)

* 2-7 BIOMAT-2012: Self-organization and collective dynamics in the live sciences: swarms, biofilms, traffic, Facultad de Ciencias (Universidad de Granada), Granada, Spain. 
Description: The aim of the BIOMAT school is to combine long seminars with courses of several specialists in the following topics. Programme: Bellomo, Nicola (Politecnico di Torino, Italy): On the mathematical theory of the dynamics of swarms viewed as complex systems; Bressan, Alberto (Penn State University, USA): Modeling and optimization for traffic flow; Degond, Pierre (Université de Toulouse, France): Mathematical models of collective dynamics in life sciences; Hemelrijk, Charlotte K. (University of Groningen, The Netherlands): The self-organisation of fish schools and bird flocks; Klapper, Isaac (Montana State University, USA): Microbial communities; Schadschneider, Andreas (University of Cologne, Germany): From ant trails to pedestrian dynamics: empirical studies and cellular automata models. During the school a meeting of "young researchers modelling biological processes" is being organized. The call to participate in this meeting is open until May 31. 
Information: http://www.ugr.es/local/kinetic/biomat/.

2-13 Summer School on Algebraic and Enumerative Combinatorics, Centro de Estudos Camilianos, S. Miguel de Seide, Guimarães, Portugal. (May 2012, p. 714)


3-5 2nd International Conference on Mathematical Applications in Engineering 2012, ICMAE'12, Kuala Lumpur, Malaysia. (Dec. 2011, p. 1618)

3-6 International Symposium on Asymptotic Methods in Stochastics, in Honour of Miklós Csörgő’s work on the occasion of his 80th birthday, Carleton University, Ottawa, Canada. (Apr. 2012, p. 590)


4-6 Workshop: Statistical Inference in Complex/High-Dimensional Problems, University of Vienna, Vienna, Austria. (Jan. 2012, p. 104)

5-10 Mathematical Physics in Bahia: Algebraic Analysis, Quantization and Representations, Instituto de Matemática, UFBA, Salvador, Brazil. (May 2012, p. 714)

6-7 National Conference on Mathematical and Computational Sciences, Adikavi Nannaya University, Rajahmundry, Andhra Pradesh, India. (May 2012, p. 714)

8-11 Trends in Set Theory, Stefan Banach International Mathematical Center, Warsaw, Poland. (Dec. 2011, p. 1618)
8–15 **International Conference on Wavelets and Applications**, Euler International Mathematical Institute, St. Petersburg, Russia. (Jan. 2012, p. 105)


9–11 **Third Workshop on Mathematical Cryptology**, International Centre for Mathematical Meetings (CIEM), Castro Urdiales (Cantabria), Spain. (Jan. 2012, p. 105)

* 9–12 **Calculus of Variations and PDEs**, Szczytnica, Poland. **Description:** This is a satellite conference of the 6th European Congress of Mathematics (Krakow 2012), organized by the Institute of Mathematics of the Polish Academy of Sciences, Jagiellonian University and University of Warsaw. **Topics:** Calculus of variations, partial differential equations with emphasis on PDEs of elliptic and parabolic types, modern methods in nonlinear PDEs, new challenges arising in the study of mathematical models, PDEs with variable exponent, partial differential inclusions, geometric function theory, function spaces in PDEs, Fourier analysis and geometric measure theory. There will be plenary lectures as well as short presentations and poster sessions. **Information:** [http://sets.impan.pl/~calcvarpde/](http://sets.impan.pl/~calcvarpde/).


9–13 **Algorithmic Number Theory Symposium (ANTS-X)**, University of California, San Diego, California. (Apr. 2012, p. 591)


9–15 **The 10th International Conference on Fixed Point Theory and its Applications (ICFPTA-2012)**, Faculty of Mathematics and Computer Science, Babes, Bolyai University, Cluj-Napoca, Romania. (Jun./Jul. 2011, p. 862)


9–27 **2012 Summer School on Geometry and Data**, Washington State University & University of Idaho, held in Moscow, Idaho. (May 2012, p. 714)


* 11–13 **Workshop on Nanomaths - Nanomaths 2012**, Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain. **Description:** Nanotechnology is a rapidly growing and exciting research area that is constantly issuing new challenges. Research in this field is dominated by experiment and computation, whilst the associated theory required to advance development is lagging behind. The purpose of the Nanomath 2012 Workshop is to bring together mathematicians, chemists, physicists and engineers to explore the potential for mathematicians and experimental scientists to gain a better insight into the workings of the nanoworld. **Information:** [http://www.crm.cat/wknanomaths](http://www.crm.cat/wknanomaths).

* 12–13 **Conference: Dynamics of Memory: What is the evidence?**, Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain. **Aim:** The aim of this conference is to discuss experimental approaches that evaluate and assess theoretical mechanistic explanations for how memories are stored, retrieved and maintained in the brain. Recent technological and theoretical developments make this the right time to bring together theoreticians and experimentalists to discuss the dynamics of memory. This meeting should be of interest to systems neuroscientists, both those using experimental as well as theoretical approaches. **Information:** [http://www.crm.cat/cdynamics](http://www.crm.cat/cdynamics).

12–19 **International Summer School on Fundamental Algorithms and Computable Modeling for High-Performance and Multi-scale Scientific/Engineering Computing**, Nankai University, School of Mathematical Sciences, No. 94 Weijin Road, Nankai District, Tianjin 300071, People's Republic of China. (May 2012, p. 715)


* 16–19 **III Jaen Conference on Approximation, Computer Aided Geometric Design, Numerical Methods and Applications**, Ubeda, Jaen, Spain. **Description:** The conference is a new activity of the Jaen Approximation Project. It has organized ten editions of the Ubeda Meeting on Approximation and two editions of the Jaen Conference on Approximation. It has also issued the *Jaen Journal on Approximation* since 2009. The objective of these conferences is to provide a useful and nice forum for researchers in the subjects to meet and discuss. **Speakers:** The conference will feature seven invited speakers (Andrei Martinez Finkelshtein, Erik Koelink, Jzsef Szabados, Larry L. Schumaker, Manfred v. Golitschek, Marie-Laurence Mazure, Martin Buhmann). We invite you to contribute a talk or a poster. We provide the possibility of organizing mini-symposia on subjects of current interest. **Information:** [http://jja.ujaen.es](http://jja.ujaen.es).

* 16–19 **Mixed Integer Programming 2012**, University of California, Davis, California. **Description:** The upcoming workshop in Mixed Integer Programming (MIP 2012) will be the ninth 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 is especially focused on providing opportunities for junior researchers to present their most recent work. The workshop series consists of a single track of invited talks. **Confirmed speakers:** Shabbir Ahmed, Gennadiy Averkov, Sam Burer, Philipp Christophel, Jesús A. DeLoera, Alberto Del Pia, Friedrich Eisenbrand, Ricardo Fukasawa, Vineet Goyal, Marcos Goycoolea, Yongpei Guan, Volker Kaibel, Kiavash Kianfar, Mustafa Kilinc, Fatma Kilinc-Karzan, David Morton, Ted Ralphs, Edward Rothberg, Siqian Shen, Renata Sotirov, Dan Steffy, Alejandro Toriello, Christian Wagner. **Aim:** The workshop is designed to provide ample time for discussion and interaction between the participants, as one of its aims is to facilitate research collaboration. **Information:** [http://www.math.ucdavis.edu/mip2012](http://www.math.ucdavis.edu/mip2012).

16–20 **Applications of Graph Spectra in Computer Science**, Centre de Recerca Matemàtica, Bellaterra, Barcelona. **Description:** The aim of the Conference is to bring together experts in the fields of microlocal and geometric analysis, which dramatically impact the study of partial differential equations, geometry, topology and spectral theory. The Conference will reflect the fundamental contributions to the analysis of partial differential equations made by Michael Taylor throughout his career, in particular helping to develop the topics of microlocal and geometric analysis in the study thereof. Such techniques have led to a surge in activity...
relating to dispersive equations on manifolds, spectral theory and mathematical physics, touching such areas as general relativity, fluid mechanics, geometric optics and inverse problems.


16–21 West Coast Algebraic Topology Summer School, Stanford University, Stanford, California. (Apr. 2012, p. 591)

16–December 21 Topological Dynamics in the Physical and Biological Sciences, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom. (April 2011, p. 629)

16–18 SING8: 8th Spain-Italy-Netherlands Meeting on Game Theory, Institute of Economics, Hungarian Academy of Sciences and Corvinus University, Budapest, Hungary. (Nov. 2011, p. 1493)


16–20 23rd International Workshop on Operator Theory and its Applications (IWOTA 2012), University of New South Wales, Sydney, Australia. (May 2012, p. 715)

16–28 XV Summer Diffiety School, Pomorski Park Naukowo-Technologiczny, Gdynia, Poland. (May 2012, p. 715)

17–27 The 5th Mathematical Society of Japan Seasonal Institute, 2012 International Summer School and Schubert Calculus, Osaka City University, Osaka, Japan. (Jan. 2012, p. 105)

18–August 1 Summer School on Discrete Morse Theory and Commutative Algebra, Institut Mittag-Leffler, Stockholm, Sweden. (May 2012, p. 715)

* 19–22 XX Oporto Meeting on Geometry, Topology and Physics, Mathematics Building, Faculty of Sciences, University of Oporto, Oporto, Portugal.

Description: The main theme of this year’s special anniversary meeting will be Noncommutative Geometry and Conformal Field Theory with mini-courses given by our main speakers: Jurgen Fuchs (Karlsruhe), Characters and Coends in Conformal Field Theory; Terry Gannon (Alberta); TBA Yasuyuki Kawahigashi (Tokyo), Superconformal Field Theory and Operator Algebras; Roberto Longo (Rome), Operator Algebras and Boundary Quantum Field Theory. The talks are at the advanced graduate or postdoctoral level. Interested participants are invited to submit relevant titles and abstracts.

Organizers: David Evans (Cardiff) Chairman, Miguel Costa (Oporto), Carlos Herdeiro (Aveiro), Marco Mackaay (Algarve), Jose Mourao (IST, Lisbon), Roger Picken (IST, Lisbon), Paulo Pinto (IST, Lisbon), Joao Nuno Tavares (Oporto).

Registration deadline: April 30, 2012, Recently Oporto was awarded the prestigious title of Best European Destination 2012 by European Consumers Choice.


* 21–22 Differential Equations Workshop (DEW), Fairfield Inn & Suites, San Jose Airport (near Santa Clara University), 1755 North First Street, San Jose, California.

Description: Too many of today’s seminars are too theoretical and quite frankly too academic. If you’re one of today’s active problem solvers, you just do it! So, just DEW! DEW or Differential Equations Workshop gives you hands-on, very practical and quick analytical methods and ways for solving linear and nonlinear ordinary differential equations (ODEs), partial differential equations (PDEs), and integral equations. We find general, particular and other kinds of solutions to differential equations such as Black-Scholes, Vaslov-Maxwell, Poisson’s, Schrödinger's, Ricci, &D, and many more as well as variations of these encountered in practice and research. This series of workshops is for bio-engineers, chemists/chemical engineers, engineers in general, CFAs, computer engineers/scientists, financial engineers, options analysts/traders, physicists, applied mathematicians and others who must or are expected to deal with these and other differential equations in their practice and/or research.

Information: [http://deworkshop.org](http://deworkshop.org)

22–27 Vibration and structural acoustics measurement and analysis, Universidade do Porto, Porto, Portugal. (Oct. 2011, p. 1325)


* 23–27 Functional Itô Calculus and Malliavin Calculus for Lévy Processes, Centre de Recerca Matemàtica, Bellaterra, Barcelona.

Description: The first Barcelona Summer School on Stochastic Analysis is mainly addressed to Ph.D. students and to young researchers in Stochastic Analysis. The objective is to give an overview of the current state of Malliavin calculus for Lévy processes and to introduce the newly developed functional Itô calculus. A comparison between the two approaches with applications to financial mathematics will be presented.

Information: [http://www.crm.cat/acstochasticanalysis](http://www.crm.cat/acstochasticanalysis)

* 23–27 Spectral Invariants on Non-compact and Singular Spaces, Centre de Recherches Mathématiques, Montréal, Canada.

Description: The development and use of spectral invariants on non-compact and singular spaces is a very active area of research with many promising avenues. The purpose of the workshop is to stimulate the exchange of ideas between experts dealing with spectral invariants in different, but related geometric contexts with the hope this will lead to new discoveries.

Information: [http://www.crm.math.ca/2012/Invariants12/index_e.php](http://www.crm.math.ca/2012/Invariants12/index_e.php)

* 23–27 Strathmore University International Mathematics Research Meeting, Strathmore University, Nairobi, Kenya.

Description: The meeting will focus on five areas of mathematics research and application, namely pure mathematics, mathematical biology, mathematical finance, statistical modeling, and mathematics education. It will be organized into five 4-day parallel workshops of invited and contributed talks in each of the areas of focus listed above. Each workshop will include graduate students and postdoctoral fellows, and a poster session. The meeting will be crowned on the last day with a one-day symposium that will include plenary talks by leading researchers in each of the listed areas, and an expert panel to discuss current problems and future directions in mathematics research and applications in Africa. The symposium will be open to participants from industry.

Information: [http://www.strathmore.edu.maths](http://www.strathmore.edu/math)

23–August 3 Model Theory, Mathematical Sciences Research Institute, Berkeley, California. (Dec. 2011, p. 1618)


23–August 17 Spectral Theory of Relativistic Operators, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom. (Sept. 2011, p. 1187)


Description: The three-body problem of Newton has singularities and symmetries. Singularities arise from collisions. McGehee [1974] showed how to eliminate the triple collision singularity through a blow-up procedure. Levi-Civita [1921] showed how to eliminate the binary collision singularities through a regularization procedure. Lagrange [1772], followed by a host of others, showed how to eliminate symmetries through a reduction procedure. Richard Montgomery will sketch how a systematic and democratic application of all
three procedures leads to a regularized reduced three body problem which consists of a complete but non-Hamiltonian vector field on a manifold with boundary.

**Information:** [http://www.pims.math.ca/scientific-event/120725-pmlaoghtnbvp](http://www.pims.math.ca/scientific-event/120725-pmlaoghtnbvp)


**Description:** The 27th Summer Topology and its Applications Conference (SumTopo 2102) is being organized by Minnesota State University and will be held July 25-28 in Mankato, MN. It will feature 8-10 plenary speakers and 2 workshop presenters as well as special sessions in asymmetric topology, continuum theory, dynamical systems, geometric topology, and set-theoretic topology. The event is dedicated to Ralph Kopperman on the occasion of his 70th birthday.

**Information:** [http://cset.mnsu.edu/mathstat/sumtopo/](http://cset.mnsu.edu/mathstat/sumtopo/)


* 29–August 2 AIM Workshop: Frame theory intersects geometry, American Institute of Mathematics, Palo Alto, California.

**Description:** This workshop, sponsored by AIM and the NSF, will be devoted to outstanding problems that are in the intersection of frame theory and geometry.

**Information:** [http://www.aimath.org/ARCC/workshops/frametheorygeom.html](http://www.aimath.org/ARCC/workshops/frametheorygeom.html)

29–August 3 XVIII EBT: 18th Brazilian Topology Meeting, Circuito das Aguas, in the State of Sao Paulo, Brazil. (Apr. 2012, p. 591)

30–August 3 The 24th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC.12), Nagoya University, Nagoya, Japan. (Nov. 2011, p. 1495)

30–August 3 wasawa 2012, Heidelberg University, Heidelberg, Germany. (Feb. 2011, p. 336)

30–August 3 Variational Methods for Evolving Objects, Room 3-309, Faculty of Science Building #3, Hokkaido University, Sapporo, Japan. (Mar. 2012, p. 454)

30–August 11 Workshop and Conference on Holomorphic Curves and Low-Dimensional Topology, Stanford University, Palo Alto, California. (Jan. 2012, p. 105)

**August 2012**

1–15 Artificial General Intelligence Summer School 2012, Reykjavik University, Reykjavik, Iceland. (May 2012, p. 715)


**Description:** You are invited to submit a full paper for review before May 1, 2012. All papers accepted will be included in IEEE Xplore and indexed by EI Compendex and ISTP. Prospective authors are encouraged to submit a full paper for review before May 1, 2012, in PDF or Word format. Each paper should be written in English. Regular papers are allowed to 5 pages. Extra pages will incur additional charges. Please submit your papers by using the online submission system.

**Information:** [http://www.itme.sdu.edu.cn; http://itme.xmu.edu.cn/login.asp; email: itme@vip.163.com](http://www.itme.sdu.edu.cn; http://itme.xmu.edu.cn/login.asp; email: itme@vip.163.com)


6–11 XVII International Congress on Mathematical Physics (ICMP12), Aalborg Kongress og Kultur Center, Europa Plads 4, 9000 Aalborg, Denmark. (Aug. 2011, p. 1013)


* 13–14 International Conference on E-Education & Learning Technologies (ICEELT 2012), Hotel Changi Village, Singapore.

**Description:** ICEELT 2012 is designed to provide a common platform to the experts and delegates to share their experiences, research ideas and discuss various related issues and challenges.

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


* 15–16 International Conference on Information Integration and Computing Applications (ICIICA 2012), Singapore, Singapore.

**Description:** The ICIICA 2012 mission is to provide an effective and established international forum for discussion and dissemination of recent advances and innovations in use of technology in education.

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

* 16–19 Set Optimization Meets Finance–International Mini-Conference on Set-Valued Variational Analysis and Optimization with Applications in Finance, Lutherstadt Wittenberg, Germany.

**Description:** The mini-conference Set Optimization Meets Finance is devoted to set-valued optimization, its applications in finance (e.g., markets with transaction costs) and the underlying convex and variational analysis for vector- and set-valued functions. It is scheduled just before and closely located to the 21st International Symposium on Mathematical Programming (ISMP).

**Information:** [http://www.set-optimization.org](http://www.set-optimization.org)

* 18 National Seminar on Mathematical Modeling in Science and Technology, The Technological Institute of Textile & Sciences, Birla Colony, Bhilwani-127021, India.

**Description:** Mathematical Modeling is a full-blown tool used in all sciences and discipline. Applied Mathematics is concerned with mathematical methods that are used in science, engineering, business, medicine and industry. Mathematics is an integral part of most branches of engineering. India is celebrating 2012 as “National Mathematical Year” marking the 125th birth anniversary of eminent mathematician S. Ramanujan. The seminar will comprise lectures by eminent scientists and academicians. The conference will include technical and poster sessions covering the given topic.

**Information:** [http://titssbhilwani.ac.in](http://titssbhilwani.ac.in)


20–24 Spectral Theory and Differential Equations, B. Verkin Institute for Low Temperature Physics & Engineering, V. Karazin Kharkiv National University, Kharkiv, Ukraine. (Dec. 2011, p. 1618)

20–24 The Fourth Geometry Meeting dedicated to the centenary of A. D. Alexandrov, The Euler International Mathematical Institute, Saint-Petersburg, Russia.

20–December 21 Cluster Algebras Program, Mathematical Sciences Research Institute, Berkeley, California. (Oct. 2011, p. 1325)
21–24 Infinite Dimensional Lie Theory: Algebra, Geometry and Combinatorics, Centre de Recherches Mathématiques, Montréal, Canada.

Description: Infinite dimensional Lie algebras have been studied in physical contexts for over 60 years. The advent of Kac-Moody theory in the late 1960s and its connections with conformal geometry has led to an explosion of mathematical interest in the field, which now includes applications and links to modular forms, singularity theory, soliton equations, Galois cohomology, crystal bases, integrable systems, and quantum groups, among many other topics.


22–24 Berlin PUM Workshop 2012, Humboldt University, Berlin, Germany. (May 2012, p. 716)

Description: Connections for Women: Discrete Lattice Models in Mathematics, Physics, and Computing, Mathematical Sciences Research Institute, Berkeley, California. (Dec. 2011, p. 1619)


23–26 International Congress in Honour of Professor H. M. Srivastava, The Auditorium at the Campus of Uludag University, Bursa, Turkey. (May 2012, p. 716)

* 24–30 XIème Colloque Franco-Roumain de Mathématiques Appliquées, Faculty of Mathematics and Computer Science of the University of Bucharest, Str. Academiei nr. 14, 010014, Bucharest, Romania.

Description: The meeting is organized by the Faculty of Mathematics and Computer Science of the University of Bucharest and Simion Stoilow Institute of Mathematics of the Romanian Academy. Special sessions: Geophysics and fluid mechanics; mathematical and numerical models in solid mechanics; statistics and fractional processes; numerical probabilities; random matrices and free probabilities; spectral methods and applications in mathematical physics; analysis and analysis of partial differential equations; control of partial differential equations; image treatment.


25–27 The 37th Sapporo Symposium on Partial Differential Equations, Room 203, Faculty of Science Building #5, Hokkaido University, Sapporo, Hokkaido, Japan.

Description: The Sapporo Symposium on Partial Differential Equations has been held annually to present the latest developments on partial differential equations (PDE).

Aim: The aim of the symposium is to help boost interaction and in-depth discussion among researchers working on different branches of PDE.

Financial Support: Limited amount of financial support for local expenses is available to non-resident visitors who are interested in the meeting. Please make inquiry to cri@math.sci.hokudai.ac.jp by April 30, 2012.

Organizers: S. Jimbo (Hokkaido University), H. Takaoka (Hokkaido University), Y. Tonegawa (Hokkaido University), G. Nakamura (Hokkaido University), Y. Giga (The University of Tokyo), T. Ozawa (Waseda University), K. Tsutaya (Hirotsuki University).

Contact: email: cri@math.sci.hokudai.ac.jp


* 27–30 The 43rd Annual Iranian Mathematics Conference, University of Tabriz, Tabriz, Iran.

Description: We are the host of the 43rd Annual Iranian Mathematics Conference at the University of Tabriz, Tabriz, Iran. The goal of this conference is to survey recent advances on a wide range of mathematics. The conference will provide a forum for mathematicians and scientists worldwide to present their latest results and a means to discuss their recent research with each other.

Information: http://imc43.tabrizu.ac.ir.


* 27–31 Geometry and Algebra of PDEs 2012, University of Tromsø, Tromsø, Norway.

Description: This meeting aims to discuss recent advances in the area of differential equations and relative areas of geometry and algebra. We plan to bring together researchers with various scientific interests and to stimulate mathematical discussions and productive cooperation.

Topics: Geometric methods of investigation of PDEs and finding its solutions; Compatibility, solvability and integrability of differential equations; Differential-geometric structures and equivalence problem; Lie groups, algebraic pseudogroups, representations and differential invariants; Homological and symbolic methods in PDEs and super-symmetric theories; Applications to mathematical physics and numerical methods.


Description: The workshop will consist of a two-day mini-course, August 28-29, followed by a three-day lecture series, Thursday, August 30th through Saturday, September 1th, 2012.

Topic: For the workshop is measure and asymptotics in group theory and low-dimensional geometry.

Funding and Sponsors: The workshop is co-sponsored by Boston College, the HMI and the NSF. Funding is available for graduate students and junior researchers wishing to attend the mini-course and workshop. A limited amount of funding is also available for both junior and senior researchers wishing to attend the workshop. If you would like to request travel support you can do so on the workshop website at http://www.hamilton.tcd.ie/events/gt/gt2012/register.htm.


29–September 2 Semigroups and Applications, Department of Mathematics, Uppsala University, Uppsala, Sweden. (Mar. 2012, p. 455)

* 31–September 1 Second workshop on algebra and its applications, University of Mohaghegh Ardabili, Ardabil, Iran.

Description: We would like to invite you to participate, present a paper in this workshop, whose main topics are all areas of algebra and applications of algebra. The workshop will take place in the Faculty of Mathematical Sciences of University of Mohaghegh Ardabili, which is located in the main campus of the University. After the conference, selected papers will be published in the special issue of Journal of Hyperstructures. There will also be a summer school with the title “Combinatorial Commutative Algebra and its Applications” after the workshop for roughly two weeks. For more information please refer to Summer School.

September 2012

1-3 13th International Pure Mathematics Conference, Quaid-i-Azam University, Islamabad, Pakistan. (Apr. 2012, p. 592)

* 3–5 Workshop on Combinatorics, University of Lisbon, Lisbon, Portugal.
Description: The "Workshop on Combinatorics" will be held at IIIUL, http://www ciuil ul pt/index_en.htm, in Lisbon, Portugal, from September 3 to 5, 2012. This meeting consists of two mini-courses, supplemented by contributed talks and posters and it is mostly addressed to graduate students and researchers interested in exploring and extending their knowledge on topics related to Matroid Theory and Triangulations of Polytopes.
Invited Speakers: Henry Crapo: Topics on Matroid Theory, Francisco Santos: Triangulations of Polytopes.
Deadline: For submission of contributed talks: July 15, 2012.
Information: If you have any further questions, please contact us at http://workklis2012 fc ul pt.

3–7 Dynamical Systems: 100 years after Poincaré, University of Oviedo, Gijon, Spain. (May 2012, p. 716)

3–7 International Conference on Differential-Difference Equations and Special Functions, University of Patras, Patras, Greece. (Aug. 2011, p. 1014)

3–7 1st International Conference on Mathematical Sciences and Applications (ICEMSA), Prishtine University, Prishtine, Kosovo. (Mar. 2012, p. 455)

* 3–7 Third Iberoamerican Meeting on Geometry, Mechanics and Control, University of Salamanca, Salamanca, Spain.
Description: The Iberoamerican Meetings on Geometry, Mechanics and Control are held every two years and are intended for young and senior researchers with interest in differential geometry, mechanics and control theory. These subject matters are highly topical, interacting in a common area of Mathematics, Physics, Mechanics, and Engineering.
Plenary speakers: Henrique Bursztyn (IMPA, Brazil), Marco Castrillón (UCM and ICMAT, Spain), Gonzalo Contreras (Cimat, Mexico), Rui L. Fernandes (IST, Portugal), Mark J. Gotay (PIMS, Canada), Janusz Grabowski (IMPan, Poland), Darryl Holm (Imperial College, United Kingdom), Sonia Martínez (UCSD, USA)–to be confirmed, Juan-Pablo Pardo (IMPA, Brazil), Gonzalo Contreras (CIMAT, Mexico), Henrique Bursztyn (IMPA, Brazil).

* 9–12 2012 Federated Conference on Computer Science and Information Systems (FedCSIS), Wroclaw, Poland.
Description: We would like to cordially invite you to consider contributing a paper to the FedCSIS 2012.
Information: For all matters relating to this conference please visit: http://www fedcsis org.

* 9–14 26th Large Installation System Administration Conference (LISA ’12), Sheraton San Diego Hotel and Marina, 1380 Harbor Island Drive, San Diego, California.
Description: Join us for the most in-depth, practical system administration training available. The annual LISA conference is the meeting place of choice for system and network administrators and engineers; it is the crossroads of Web operations, DevOps, enterprise computing, educational computing, and research computing. The conference serves as a venue for a lively, diverse, and rich mix of technologists of all specialties and levels of expertise. LISA is the place to teach and learn new skills, debate current issues, and meet industry gurus, colleagues, and friends. The 6-day event offers training by industry leaders; invited talks; the latest research through refereed papers, practice and experience reports, posters, and workshops; answers to your toughest questions; and that all-important face-to-face time with experts in the community.

10–12 3rd IMA Conference on Numerical Linear Algebra and Optimisation, University of Birmingham, United Kingdom. (Feb. 2012, p. 340)


Description: The main objective of the conference is to bring together scientists with interests in the analysis of nonlinear partial differential equations (PDE) and their applications to present recent developments and explore new connections between nonlinear PDE and other areas in mathematics and related fields in the sciences. Held at the Maths Institute, Oxford, there will be 12 lectures and 8 mini-symposium sessions over 4 days (Monday to Thursday).
The workshop will be held at St. Anne’s College, Oxford, and consist of three sessions, each three hours in duration (Friday and Saturday).
Theme: The theoretical and numerical aspects of nonlinear hyperbolic and dispersive free boundary and interface problems.
Information: http://www.maths ox ac uk/groups/oxpde events.


12–14 Algebra Geometry and Mathematical Physics – 8th workshop – Brno 2012, Faculty of Mechanical Engineering, Brno University of Technology, Czech Republic. (Mar. 2012, p. 455)

17–19 IMA Conference on Mathematics of Medical Devices and Surgical Procedures, University of London, United Kingdom. (Apr. 2012, p. 592)
Mathematics Calendar

17–21 ICERM Workshop: Bayesian Nonparametrics, ICERM, Providence, Rhode Island. (Jan. 2012, p. 106)


* 18–21 Dynamical systems on random graphs, Cantabria, Spain. Description: This conference aims to bring together mathematical physicists, experts in dynamical systems and neuroscientists, all with research interests in graph theory, networks, complex systems, continuous dynamical systems on random graphs and heterogeneous media, and their applications. The conference will comprise 4 sessions, each devoted to a different topic: random graphs and spectral theory, point models (e.g., neural networks or coupled ODEs), spatial models (e.g., quantum graphs or detailed neuron models) and complex networks. We plan to allow a significant amount of time for interdisciplinary discussion.

Speakers: Gustavo Deco (Universitat Pompeu Fabra, Barcelona, Spain), Cresmin Josić (University of Houston, USA), Bojan Mohar (Simon Fraser University, Canada), Uzy Smilansky (Weizmann Institute, Israel, and Cardiff University, UK).

Information: http://www.uni-ulm.de/dsrg2012.

* 19–21 School on Singular Analysis, University of Hanover, Germany. Description: The school is aimed at doctoral students and offers introductory and advanced courses on the analysis of singular spaces. What the courses have in common is the use of pseudodifferential techniques to approach problems ranging from spectral theory to global analysis and nonlinear PDEs. Partial support for doctoral students is available.

Information: http://www.math-conf.uni-hannover.de/ana12/.


20–22 Lie and Klein: the Erlangen program and its impact on mathematics and physics, Institut de Recherche Mathématique Avancé, University of Strasbourg, France. (Nov. 2011, p. 1495)

20–October 20 ERC research period on Diophantine geometry, Centro di Ricerca Matematica "Ennio De Giorgi", Scuola Normale Superiore, Piazza dei Cavalieri 3, 56100 Pisa, Italy. (May 2012, p. 717)


24–27 Eighth National Congress on Finite Element Method, School of Mathematical Sciences, Nankai University, 94 Weijin Road, Nankai District, Tianjin 300071, China. (May 2012, p. 717)


24–28 Mathematics and Physics of Moduli Spaces, Heidelberg University, Germany. (May 2012, p. 717)

* 26–29 Tensors and Their Geometry in High Dimensions, University of California, Berkeley, California, California. Description: Berkeley RTG on Representation Theory, Geometry, and Combinatorics will host a workshop on “Tensors and Their Geometry in High Dimensions”, featuring Andrew Snowden, Jan Draisma, and Giorgio Ottaviani giving mini-courses. There will also be opportunities for some of the other participants to give related talks.

Information: For details visit: http://math.berkeley.edu/~oeding/RTG/index.html. There are no registration fees; however participants are kindly asked to register online. There may be some funding for young researchers.

October 2012


1–April 30 Semester on Curves, Codes, Cryptography, Sabanci University, Istanbul, Turkey. (Feb. 2012, p. 340)


3–6 International Conference on Applied and Computational Mathematics (ICACM), Middle East Technical University (METU), Ankara, Turkey. (Oct. 2011, p. 1325)

* 5–7 Yamabe Memorial Symposium (50th anniversary), University of Minnesota, Minneapolis, Minnesota.

Theme: “Geometry and Analysis”.

Speakers: The 8 confirmed speakers are: Huai-Dong Cao, Jean-Pierre Demailly, Benson Farb, Robert Hardt, Misha Kapovich, Conan Leung, Natasa Sesum, and Ben Weinkove.

Financial support: Has been provided by NSF to defray expenses for a number of participants. Highest preference will be given to younger researchers (grad students, postdocs, young faculty), but some funds will be reserved for more senior mathematicians. Applications from women and underrepresented minorities are especially encouraged. For more details and an application form, please consult our website.

Information: http://www.math.wisc.edu/yamabe/2012/.

8–12 ICERM Workshop: Uncertainty Quantification, ICERM, Providence, Rhode Island. (Jan. 2012, p. 106)


13–14 AMS Southeastern Section Meeting, Tulane University, New Orleans, Louisiana. (Aug. 2011, p. 1014)

* 18 2nd Annual Symposium on Large-Scale Inference, AFIT Theatre and Cultural Center, Silver Spring, Maryland.

Description: Social & Scientific Systems, Inc. hosts its 2nd Annual Symposium on Large-Scale Inference.

Keynote Speaker: Dr. Carl N. Morris, Professor of Statistics, Harvard University.

Information: Please RSVP to: http://LargeData@s-3.com.

* 18–21 First International Conference on Analysis and Applied Mathematics, Gumushane University, Gumushane, Turkey.

Description: We are proud to announce the First International Conference on Analysis and Applied Mathematics. The aim of this conference is to bring together mathematicians working in the area of analysis and applied mathematics to share new trends of applications of math. In mathematics, the developments in the field of applied mathematics open new research areas in analysis and vice versa. That is why we plan to found a journal to provide a forum for researchers and scientists to communicate their recent developments and to present their original results in various fields of analysis and applied mathematics.


20–21 AMS Central Section Meeting, University of Akron, Akron, Ohio. (Aug. 2011, p. 1014)

22–26 AIM Workshop: Lipschitz metric on Teichmüller space, American Institute of Mathematics, Palo Alto, California. (May 2012, p. 717)


24–26 International Conference in Number Theory and Applications 2012 (ICNA 2012), Department of Mathematics, Faculty of Science, Kasetsart University, Bangkok, Thailand. (Apr. 2012, p. 593)
November 2012

1–2 Central and Eastern European Software Engineering Conference in Russia 2012, Digital October Center, Moscow, Russia. (Apr. 2012, p. 593)

1–3 The 13th International Conference of Mathematics and its Applications ICMA2012, Department of Mathematics, "Politechnica" University of Timisoara, City of Timisoara, Romania. (May 2012, p. 717)

* 7–9 International Conference on Advancement of Science and Technology (icCAST 2012), Kuantan, Pahang, Malaysia. Description: icCAST2012 aims to provide an international forum for researchers to present and discuss recent advances and new findings in mathematics and its applications. Moreover, it should accelerate the growth of mathematics and its applications and their benefits to the community at large. The theme of the conference is Contemporary Mathematics, Mathematical Physics and Their Applications. Information: http://iium.edu.my/icast/2012/.

9–10 Blackwell Tapia Conference 2012, Institute for Computational and Experimental Research in Mathematics (ICERM), 121 South Main Street, Providence, Rhode Island. (Feb. 2012, p. 340)

* 12–March 3, 2013 A fixed point theorem for Meir-Keeler contractions and its applications to integral equations in ordered modular function spaces, Semnan University, Semnan, Iran. Description: The Banach contraction mapping principle is one of the pivotal results of analysis. Generalization of the above principle has been a heavily investigated branch of research. In particular, Meir and Keeler present the following fixed point theorem: Theorem: Let \((X, d)\) be a complete metric space and \(T : X \rightarrow X\) an operator. Suppose that for every \(\epsilon > 0\) there exists \(\delta > 0\) such that for \(x, y \in X, \epsilon < d(x, y) < \epsilon + \delta\), then \(d(Tx, Ty) < \epsilon\). Then, \(T\) admits a unique fixed point \(z\) and for any \(x \in X\), the sequence \(T^n x\) converges to \(z\). On the other hand, it is well known that one of the standard proofs of Banach's fixed point theorem is based on Cantor's theorem in complete metric spaces. In this paper we present a fixed point theorem of Meir-Keeler type in ordered modular space. As an application we study the existence and uniqueness of a solution for an integral equation of Lipschitz type in a Musielak-Orlicz space. Information: http://seman.ac.ir.

16–18 Special Functions, Partial Differential Equations and Harmonic Analysis, a conference in honor of Calixto P. Calderón, Roosevelt University, 425 Wabash Ave, Chicago, Illinois. (May 2012, p. 717)

17 Info-Metrics and Nonparametric Inference, University of California Riverside, Riverside, California. (Mar. 2012, p. 456)


Focus: The Seminar will cover all aspects of the history of mathematics and, in particular, the following areas: Life and Achievements of Srinivasa Ramanujan; History of Mathematics in Educational Curricula; Mathematics and Indigenous Cultures of the World; Historical Aspects of Modern Mathematics. The academic sessions will consist of invited talks, panel discussions and paper presentations. The Ramjas Seminar shall be followed by an International Conference on History of Mathematics at MD University, Rohtak, on November 21–24, 2012, along with the Annual Meeting of ISHM. Details are available at http://www.indianshm.com.

Organizers: Indian Society for History of Mathematics and Ramjas College, Delhi.

Deadline/Registration: Abstracts pertaining to the above are invited by October 1, 2012. Registered participants will be provided with free Conference Kit and meals at the Seminar venue. Shared accommodations for the outstation participants will be arranged in the University guest-houses. Those interested in accommodations in city hotels on payment may request them. Cultural programs and sightseeing tours for the participants could be arranged to nearby tourist places and historical monuments.

Contacts: Dr. Man Mohan, Convenor ISHM 2012, Ramjas College, Delhi, India; email: manmohan@indianshm.com; http://www.indianshm.com.

* 28–30 ICERM Workshop: Performance Analysis of Monte Carlo Methods, ICERM, Providence, Rhode Island.

Description: Monte Carlo methods have become increasingly important in Engineering and the Sciences. These application areas have posed challenges and opportunities in the analysis of modern Monte Carlo algorithms. The workshop's main focus is on: a) the mathematical techniques and aspects that have been key in the analysis of these algorithms, and b) the identification of techniques that are likely to play a role in future analysis.

Information: http://icerm.brown.edu/sp-f12-w4.

December 2012

3–7 Combinatorial Commutative Algebra and Applications, Mathematical Sciences Research Institute, Berkeley, California. (May 2012, p. 718)


* 10–14 Reproducibility in Computational and Experimental Mathematics, Institute for Computational and Experimental Research in Mathematics (ICERM), Providence, Rhode Island.

Description: The purpose of this workshop is to discuss aspects of reproducibility most relevant to the mathematical sciences among researchers from pure and applied mathematics from academics and other settings, together with interested parties from funding agencies, national laboratories, professional societies, and publishers. This will be a working workshop, with relatively few talks and dedicated time for breakout group discussions on the current state of the art and the tools, policies, and infrastructure that are needed to improve the situation. The group will be charged with developing guides to current best practices and/or white papers on desirable advances.

Information: http://icerm.brown.edu/tw12-5-rcem.

* 10–21 VI-MSI Event: Winter School and Conference on Computational Aspects of Neural Engineering, Bangalore, India.

Description: We are pleased to announce the first joint IMI-ICERM Winter School on Computational Aspects of Neural Engineering. The course is directed at graduate students, postdoctoral fellows, and
other researchers from the physical sciences (e.g., physics, mathematics, computer science, engineering) and the life sciences (e.g., neuroscience, biology, physiology). The course will offer participants the opportunity to learn about the foundations of neural engineering and brain-computer interfacing, and develop their skills in computational analysis of neural data for the control of external devices.

**Topics:** Will range from primers on neuroscience, signal processing, and machine learning to brain-computer interfacing based on multi neuronal activity, electrocorticography (ECoG), and electroencephalography (EEG). The course will consist of 3 hours of lectures each morning, followed by a 3-hour MATLAB-based computer laboratory in the afternoon. Participants will pair up for these laboratories, and an effort will be made to pair someone from the life sciences with someone from the physical sciences. All classes and laboratories will be held on the campus of the Indian Institute of Science (IISc). This program is part of the ISc Mathematics Initiative (IMI) at the Indian Institute of Science and the VMSS program at IICERM.

**Information:** [http://icerm.brown.edu/vi-mss/](http://icerm.brown.edu/vi-mss/)


**Description:** A premier forum for the presentation of new advances and research results in all areas of Mathematical Sciences and Applications. ICMSA-2012 will bring together leading researchers, engineers and scientists in the domain of interest from around the world. Leading mathematicians around the world shall deliver keynote addresses and chair sessions.

**Topics:** Of interest for submission include, but are not limited to: Algebra, algebraic topology, advanced calculus, advanced numerical methods, artificial neural networks, calculus and trigonometry, complex analysis, computational fluid dynamics, etc.

**Directions:** Nearest Metro Stations: “Khan Market” & “Jor Bagh” Map: IIC at Google Maps.

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

* 16–22 Commutative rings, integer-valued polynomials and polynomial functions, Graz University of Technology, Graz, Austria. (Nov. 2011, p. 1495)

* 17–20 9th IMA International Conference on Mathematics in Signal Processing, Austin Court, Birmingham, United Kingdom. (Nov. 2011, p. 1495)


* 17–21 International Conference on the Theory, Methods and Applications of Nonlinear Equations, Department of Mathematics, Texas A&M University-Kingsville, Kingsville, Texas. (Feb. 2012, p. 340)

* 21–23 6th International Conference of IMBIC on “Mathematical Sciences for Advancement of Science and Technology” (MSAST 2012), Salt Lake City, Kolkata, West Bengal, India.

**Description:** The main objective of the conference is to bring specialized topics in mathematics, statistics, computer science, information technology, bioinformatics and closely related interdisciplinary areas to the forefront. Original full papers are invited. All papers are to be screened and accepted papers will be published in the proceedings, except for a few full selective papers of high quality which may be published in the highly acclaimed series of monographs of IMBIC in Volume 2 (2013).

**Contact:** All correspondence in respect to the conference is to be addressed to Dr. Avishek Adhikari, Convenor MSAST 2012 & Secretary, IMBIC; email: msast[paper]gmail.com; http://www.isical.ac.in/~avishek_z/.

**Information:** [http://imbic.org/forthcoming.html](http://imbic.org/forthcoming.html)


27–30 Eighth International Triennial Calcutta Symposium on Probability and Statistics, Department of Statistics, Calcutta University, Kolkata, West Bengal, India. (Nov. 2011, p. 1495)

* 31–January 11 Recent Advances in Operator Theory and Operator Algebras, Indian Statistical Institute, Bangalore, India.

**Description:** Focusing on the general theme of operator theory, operator algebras and function theory. There will be a one-week workshop December 31, 2012–January 5, 2013, followed by a conference January 7, 2013–January 11, 2013. The purpose of the workshop is to bring experts and students as well as researchers together to discuss the most recent developments in certain topics in those areas. The conference will concentrate on recent developments in Operator Theory, Operator Algebras and related fields.

**Information:** [http://www.isibang.ac.in/~jay/rota.html](http://www.isibang.ac.in/~jay/rota.html)

**January 2013**


**Description:** Ever since Jakob Bernoulli proved the law of large numbers for Bernoulli random variables in 1713, the subject of limit theorems has been a driving force for the development of probability theory as a whole. The elucidation of different flavours of laws of large number, central limit theorems and laws of iterated logarithm, their extensions to Markov chains or sums of weakly dependent or stationary processes, limit theorems for Banach space valued random variables, etc., have given rise to a rich theory as well as the basic tools for tackling any problem involving randomness. Today, 300 years after the landmark result of Bernoulli, it is fruitful to look back at the way in which the search for limit theorems has shaped the subject. It is also fruitful to consider how the emphasis has evolved over time from simple limit theorems to getting bounds on the rates of convergence or obtaining inequalities, which are of more immediate relevance in applications to finite samples. The current workshop and conference will focus on some of these topics, and also more broadly on issues of current interest in probability theory.

The workshop will consist of five short courses on a variety of topics, aimed at the level of graduate students but also of potential interest to researchers in probability and related fields. The conference following the workshop will have lectures on recent developments in various relevant fields of probability.

**Information:** [http://icerm.brown.edu/vi-mss/](http://icerm.brown.edu/vi-mss/)


* 7–12 Iwasawa Theory, Representations, and the p-adic Langlands Program, University of Münster, Münster, Germany. (Jan. 2012, p. 106)


**Description:** This workshop, sponsored by AIM and the NSF, will bring together mathematicians, graduate students, and industry and public agency representatives to work on mathematical modeling problems related to the planet Earth.

**Information:** [http://www.aimath.org/ARCC/workshops/modelenvironment.html](http://www.aimath.org/ARCC/workshops/modelenvironment.html)

* 14–May 24 Noncommutative Algebraic Geometry and Representation Theory, Mathematical Sciences Research Institute, Berkeley, California. (Oct. 2011, p. 1325)


28–February 1 Introductory Workshop: Noncommutative Algebraic Geometry and Representation Theory, Mathematical Sciences Research Institute, Berkeley, California. (Aug. 2011, p. 1014)
February 2013

* 4–8 AIM Workshop: Stochastics in geophysical fluid dynamics, American Institute of Mathematics, Palo Alto, California. **Description:** This workshop, sponsored by AIM and the NSF, will be devoted to the mathematical foundations, physical underpinnings and applications of large scale stochastic models for climate and weather. **Information:** [http://www.aimath.org/ARCC/workshops/stochasticfluid.html](http://www.aimath.org/ARCC/workshops/stochasticfluid.html).

* 4–8 The Second Biennial International Group Theory Conference, Dogus University, Istanbul, Turkey. **Description:** We would like to announce herewith the second of the Biennial International Group Theory Conferences hosted every other year by the countries Malaysia, Turkey and Iran successively. The conference aims to bring together leading mathematicians and active researchers working on the theory of groups in order to exchange ideas, present new results and identify the key problems in the field. This series of conferences is considered as an important means to bring together young group theorists and graduate students with the leading experts of the world and help them to get acquainted with relevant and actual theories, problems and methods of their research area. **Information:** Contact: 2big@dogus.edu.tr; [http://istanbulgroup2013.dogus.edu.tr](http://istanbulgroup2013.dogus.edu.tr).

* 11–15 ICERM Workshop: Sage Days: Multiple Dirichlet Series, Combinatorics, and Representation Theory, ICERM, Providence, Rhode Island. **Description:** This workshop will bring together experienced Sage and Sage-Combinat developers and experts of multiple Dirichlet series and computational algebraic combinatorics. Like every workshop in the Sage Days series, it will welcome whoever wants to discover Sage, learn more about it, or contribute to it. This workshop will focus on Sage training and on the design and planning of new computational features of central interest for the semester, around Weyl groups, Hecke algebras and their representations, crystals, posets, combinatorial data visualization, etc. The workshop will consist of mathematical presentations, presentations on Sage and coding sprints. The mathematical presentations will include talks introducing the relevant mathematics for the entire audience and more advanced talks for interested participants. The Sage presentations will begin with introductory tutorials and progress to more advanced topics, including software development in Sage. **Information:** [http://icerm.brown.edu/sp-s13-w1](http://icerm.brown.edu/sp-s13-w1).

March 2013


* 4–8 ICERM Workshop: Whittaker Functions, Schubert Calculus and Crystals, ICERM, Providence, Rhode Island. **Description:** Schubert calculus is the modern approach to classical problems in enumerative algebraic geometry, specifically on flag varieties and their many generalizations. Crystals are combinatorial tools based on quantum groups which arise in the study of representations of Lie algebras. Whittaker functions are special functions on Lie groups or p-adic groups, for example $GL(n,F)$, where $F$ might be the real or complex numbers, or a p-adic field. The area of intersection between these three topics is combinatorial representation theory. Common tools such as Demazure operators, the Bruhat partial order, and Macdonald polynomials appear in all three areas. Some connections between these three areas are quite new. This workshop will explore these connections. **Information:** [http://icerm.brown.edu/sp-s13-w2](http://icerm.brown.edu/sp-s13-w2).

* 11–14 Interactions between Analysis and Geometry, Institute for Pure and Applied Mathematics (IPAM), UCLA, Los Angeles, California. **Description:** Of the DGCI conference is to gather researchers in discrete models, discrete geometry and topology, with applications in image analysis and image synthesis. **Topics:** Of interest include (but are not limited to): Models for discrete geometry, discrete and combinatorial topology, geometric transforms, discrete shape representation, recognition and analysis, discrete tomography, morphological analysis, discrete modelling and visualization, discrete and combinatorial tools for image segmentation and analysis. Publication of the conference proceedings will be in LNCS by Springer-Verlag. **Submissions:** Must be in electronic form (PDF or PS) and should be uploaded through the DGCI 2013 website. Submissions will be peer-reviewed by at least 2 qualified reviewers. **Important Dates:** Full paper submission: July 2, 2012. Full paper notification: November 5, 2012. Camera-ready submission: December 5, 2012. **Information:** [http://dgc2013.us.es/](http://dgc2013.us.es/).

* 25–29 AIM Workshop: Mathematical problems arising from biochemical reaction networks, American Institute of Mathematics, Palo Alto, California. **Description:** This workshop, sponsored by AIM and the NSF, will be devoted to the mathematical analysis of biochemical reaction networks arising in systems biology, in particular, in classes of nonlinear dynamical systems that arise from biologically relevant networks of chemical reactions, parametrized by rate constants that are usually unknown and difficult to measure. **Information:** [http://www.aimath.org/ARCC/workshops/biochemnet.html](http://www.aimath.org/ARCC/workshops/biochemnet.html).

April 2013


* 8–12 Interactions between Noncommutative Algebra, Representation Theory, and Algebraic Geometry, Mathematical Sciences Research Institute, Berkeley, California. **Information:** [http://www.ams.org/meetings/sectional/sectional.html](http://www.ams.org/meetings/sectional/sectional.html).


* 15–19 ICERM Workshop: Combinatorics, Multiple Dirichlet Series and Analytic Number Theory, ICERM, Providence, Rhode Island. **Description:** Recent years have seen a flurry of activity in the field of Weyl group multiple Dirichlet series. Surprising and unexpected connections between these multiple Dirichlet series and several different fields of mathematics have emerged. This workshop will survey recent results and set the stage for future developments which further interrelate analytic number theory, automorphic forms and combinatorial representation theory. Particular focus will be given
to applications of Weyl group multiple Dirichlet series to the following areas: Average value and nonvanishing results for families of L-functions, Periods of automorphic forms, Connections between characters sums over function fields and characters of affine root systems, Metapeclettic Casselman-Shalika formulae and deformations of the Weyl character formula.

Information: http://icerm.brown.edu/sp-s13-w3.

*27–28 2013 Spring Central Section Meeting*, Iowa State University, Ames, Iowa.


May 2013


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.

June 2013

*10–14 Computational Methods and Function Theory 2013*, Shantou University, Shantou, Guangdong, China.

Description: The general theme of the meeting concerns various aspects of interaction of complex variables and scientific computation, including related topics from function theory, approximation theory and numerical analysis. Another important aspect of the CMFT meetings, previously held in Valparaiso 1989, Penang 1994, Nicosia 1997, Aveiro 2001, Joensuu 2005 and Ankara 2009, is to promote the creation and maintenance of contacts with scientists from diverse cultures.

International Organizing Committee: Ilpo Laine (University of Eastern Finland); Stephan Ruscheweyh (Universität Würzburg, Germany); Edward B. Saff (Vanderbilt University, USA); Yuefei Wang (AMSS, Chinese Academy of Sciences, China); Hasi Wulan (Shantou University, China).

Information: email: ptli@stu.edu.cn; http://math.stu.edu.cn/cmft/index.asp.

July 2013

*1–5 Erdős Centennial*, Budapest, Hungary.

Description: The Hungarian Academy of Sciences, the Alfréd Rényi Mathematical Institute of the Hungarian Academy of Sciences, the Eötvös Loránd University and the János Bolyai Mathematical Society announce that a conference dedicated to the 100th anniversary of Paul Erdős will be held in Budapest, Hungary.

Topics: Include all basic fields that Paul Erdős contributed to: Number theory, analysis, combinatorics, probability theory and set theory, among others. The emphasis will be on the recent developments in these areas, initiated or inspired by his mathematical legacy.

Information: http://www.renyi.hu/conferences/erdos100/index.html.

*14–19 The sixth International Congress of Chinese Mathematicians (ICCM)*, Opening ceremony on July 14 in the Big Hall of the Grand Hotel, Taipei, Taiwan.

Description: ICCM is a triennial event that brings together Chinese and overseas mathematicians to discuss the latest research developments in pure and applied mathematics. During the opening of the ICCM 2013, you will witness the presentation of the Morningside Medals, the most prestigious awards for Chinese mathematicians. During the conference, there will be at least fifteen plenary talks, several Morningside talks by international speakers, and over one hundred 45-minutes talks. The talks cover a full range of subjects in mathematical sciences, from number theory, geometry, differential equations to statistics and bio-mathematics. The first Congress was held in December 1998 in Beijing. The second Congress took place in Taipei 2001, then in Hong Kong, in Hangzhou, and 2010 in Beijing again. After twelve years, the ICCM 2013 will return to Taipei. We expect that there will be about 1,000 participants and nearly 200 presentations on a broad spectrum of mathematical sciences.

Lectures and Talks: From July 15 to July 19 on the campus of National Taiwan University, Taipei, Taiwan.