Mathematics Calendar

The most comprehensive and up-to-date Mathematics Calendar information is available on e-MATH at http://www.ams.org/mathcal/.

May 2003

*14–16 **DIMACS Workshop on Data Depth: Robust Multivariate Analysis, Computational Geometry and Applications**, DIMACS Center, Rutgers University, Piscataway, New Jersey.
Short Description: The concept of data depth provides new perspectives to probabilistic as well as computational geometries. In particular, the development of implementable computing algorithms for depth-based statistics has brought about many new challenges in computational geometry. This workshop would create a unique environment for multidisciplinary collaboration among computer scientists, theoretical and applied statisticians, and data analysts. It would bring together active researchers in these fields to discuss significant open issues, establish perspective on applications, and set directions for further research.
Organizers: R. Liu, Rutgers Univ., rliu@stat.rutgers.edu; R. Serfling, Univ. of Texas at Dallas, serfling@utdallas.edu; D. Souvaine, Tufts Univ., dls@eecs.tufts.edu; Y. Vardi, Rutgers Univ., vardi@stat.rutgers.edu.
Contact: R. Liu, Rutgers Univ., rliu@stat.rutgers.edu.
Local Arrangements: M. Mercado, DIMACS Center, mercado@dimacs.rutgers.edu, 732-445-5928.
Deadline: Participants interested in presenting talks/posters at the workshop please submit abstracts to R. Liu (rliu@stat.rutgers.edu) by March 25, 2003.
Information: http://dimacs.rutgers.edu/Workshops/Depth/.

*20–24 **Conference and Workshop on Coding Theory and Quantum Computing**, University of Virginia, Charlottesville, Virginia.
Topics: Coding Theory and Quantum Computing, including Kerdock/Preparata Codes, Orthogonal Geometry and Quantum Computing, Quantum Cryptography, and Quantum Entanglement.
Description: The week will begin with a three-day workshop that will include three minicourses geared towards those who may have little knowledge about the particular areas and that will prepare attendees for the invited talks during the following days.
Minicourse Lecturers: R. Calderbank (AT&T Labs Research), S. Lomonaco, Jr. (Univ. of Maryland, Baltimore County), D. Meyer (Univ. of California, San Diego).
Invited Speakers: S. van Enk (Bell Labs), S. Gao (Clemson), M. Hillery (Hunter College of CUNY), G. Matthews (Clemson), B. Terhal (IBM Watson Research Center), C. van der Wal (Harvard), L. Viola (Los Alamos National Laboratory), J. Walker (Univ. of Nebraska), Q. Xiang (Univ. of Delaware).
Contributed Talks: Abstracts for contributed talks are welcome and should be sent to the email address below.
Organizers: D. Evans (Univ. of Virginia), J. Holt (Univ. of Virginia), J. Howland (Univ. of Virginia), C. Jones (Washington and Lee), B. Parshall (Univ. of Virginia), O. Pfister (Univ. of Virginia), H. Ward (Univ. of Virginia).
Sponsors: Department of Mathematics, University of Virginia; Institute of Mathematical Sciences, University of Virginia; Dean, Faculty of Arts and Sciences, University of Virginia; National Science Foundation.
Information: http://www.cs.virginia.edu/~evans/quantum/; email: conf2003@weyl.math.virginia.edu.

June 2003

*2–6 **DIMACS Workshop on Complexity and Inference**, DIMACS Center, Rutgers University, Piscataway, New Jersey.
Short Description: In this workshop we will explore both the foundational aspects of complexity-based inference as well as

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This section contains announcements of meetings and conferences of interest to some segment of the mathematical public, including ad hoc, local, or regional meetings, and meetings and symposia devoted to specialized topics, as well as announcements of regularly scheduled meetings of national or international mathematical organizations. A complete list of meetings of the Society can be found on the last page of each issue.
An announcement will be published in the *Notices* if it contains a call for papers and specifies the place, date, subject (when applicable), and the speakers; a second announcement will be published only if there are changes or necessary additional information. Once an announcement has appeared, the event will be briefly noted in every third issue until it has been held and a reference will be given in parentheses to the month, year, and page of the issue in which the complete information appeared. Asterisks (*) mark those announcements containing new or revised information.
In general, announcements of meetings and conferences held in North America carry only the date, title of meeting, place of meeting, names of speakers (or sometimes a general statement on the program), deadlines for abstracts or contributed papers, and source of further information. Meetings held outside the North American area may carry more detailed information. In any case, if there is any application deadline with respect to participation in the meeting, this fact should be noted. All communications on meetings and conferences in the mathematical sciences should be sent to the Editor of the *Notices* in care of the American Mathematical Society in Providence or electronically to notices@ams.org or mathcal@ams.org.
In order to allow participants to arrange their travel plans, organizers of meetings are urged to submit information for these listings early enough to allow them to appear in more than one issue of the *Notices* prior to the meeting in question. To achieve this, listings should be received in Providence **eight months** prior to the scheduled date of the meeting.
The complete listing of the Mathematics Calendar will be published only in the September issue of the *Notices*. The March, June, and December issues will include, along with new announcements, references to any previously announced meetings and conferences occurring within the twelve-month period following the month of those issues. New information about meetings and conferences that will occur later than the twelve-month period will be announced once in full and will not be repeated until the date of the conference or meeting falls within the twelve-month period.
The Mathematics Calendar, as well as Meetings and Conferences of the AMS, is now available electronically through the AMS website on the World Wide Web. To access the AMS website, use the URL: http://www.ams.org/.

applications of these ideas to challenging modeling problems. Participants will be drawn from the fields of statistics, information and coding theory, machine learning, and complexity theory. Application areas include biology, information technologies, physics and psychology. The following specific topics will be covered by the workshop: Kolmogorov complexity and inference, MDL (MML) theory and applications, Lossy compression and complexity theory, Complexity and Bayesian methods, Individual sequence/online prediction and predictive complexity, Compression methods for clustering, Machine learning and computational complexity, Complexity and cognitive science, Applications.
Sponsor: DIMACS Center.
Organizers: M. Hansen, Bell Labs., email: cocteau@research.bell-labs.com; P. Vitanyi, CWI and the Univ. of Amsterdam, email: Paul.Vitanyi@cwi.nl; B. Yu, UC Berkeley, email: binyu@stat.berkeley.edu.
Local Arrangements: M. Mercado, DIMACS Center; email: mercado@dimacs.rutgers.edu, 732-445-5928.
Deadline: Submission of contributed papers: March 1, 2003.
Information: Visit http://dimacs.rutgers.edu/Workshops/Inference/.

* 9–14 **Variational Methods in Celestial Mechanics**, AIM Research Conference Center, Palo Alto, California.
Organizers: R. Montgomery and A. Chenciner.
Workshop Topics: The focus of this workshop is variational methods in celestial mechanics, more precisely, minimization of the action in the presence of symmetries. Using the direct method, a number of new orbits have been established over the last three years. In the workshop we will aim to summarize the state of knowledge to date and pose problems within the N-body problem which may be accessible to variational methods.
Deadline: February 22, 2003.
Information: Visit http://aimath.org/ARCC/workshops/varcelest.html.

* 11–12 **DIMACS Workshop: Algorithms for Multidimensional Scaling II**, Doubletree Hotel, Tallahassee, Florida.
Sponsors: DIMACS Center.
Organizers: J. Douglas Carroll (chair), Rutgers University, email: dcarroll@rci.rutgers.edu; P. Arabie, Rutgers Univ., email: arabie@andromeda.rutgers.edu; L. Hubert, Univ. of Illinois, email: lhubert@s.psych.uiuc.edu; M. Trosset, The College of William & Mary, email: trosset@math.wm.edu; M. Brusco, Florida State Univ., email: mbrusco@garnet.acns.fsu.edu; M. Janowitz, DIMACS liaison, email: melj@dimacs.rutgers.edu.
Local Arrangements: M. Mercado, DIMACS Center, mercado@dimacs.rutgers.edu, 732-445-5928.
Information: Visit http://dimacs.rutgers.edu/Workshops/Scaling2/.

* 11–14 (REVISED) **Curvature in Geometry, in Honour of Prof. L. Vanhecke**, Grand Hotel Tiziano e dei Congressi, Lecce, Italy.
Topics: The program will concern topics in differential geometry and will focus on the role of curvature in geometry, a research field in which Prof. L. Vanhecke gave relevant contributions.
Main Speakers: J. Berndt (Univ. of Hull, UK), D. Blair (Michigan State Univ., USA), A. Borisenko (Kharkov Nat. Univ., Ukraine), V. Cortes (Univ. of Nancy, France), P. De Bartolomeis (Univ. di Firenze, Italy), P. Gauduchon (École Polytechnique, France), K. Grove (Univ. of Maryland, College Park, USA), V. Muñoz (Univ. Autònoma de Madrid, Spain), A.M. Naveira (Univ. de Valencia, Spain), S. Nishikawa (Tohoku Univ., Japan), M. Pontecorvo (Univ. di Roma Tre, Italy), C.-L. Terng (Northeastern Univ., Boston, USA), J. A. Wolf (Univ. of California, Berkeley, USA).
Organizers: R. A. Marinosci, rosanna@ilenic.unile.it; G. DeCecco, giuseppe.dececco@unile.it; G. Calvaruso, giovanni.calvaruso@unile.it; E. Boeckx, eric.boeckx@wis.kuleuven.ac.be; L. Nicolodi, lorenzo.nicolodi@unipr.it.
Information: http://www.diffgeo.unile.it.

* 15–July 4 **The Arithmetic, Geometry and Topology of Algebraic Cycles**, Morelia, Mexico.
Description: The first two weeks (June 15–28) will be in a Summer School format, devoted to short courses and surveys. The third week (June 29–July 4) will be a research-level conference.
Organizers: J. Elizondo, P. Luis del Angel, J. D. Lewis, V. Srinivas, C. Weibel.
Funding: Limited funding is available to cover the expenses of advanced graduate students, postdoctoral fellows and young researchers. We encourage those people to let us know they need funding.
Information: Details of the application process and program can be found at http://www.math.unam.mx/cycles/.

* 27–29 **NKS 2003**, Boston, Massachusetts.
Conference Outline: Since its release in May 2002, Stephen Wolfram's *A New Kind of Science* has generated immense interest across many areas of science and beyond.
Description: NKS 2003 will be the first conference devoted to the ideas and implications of *A New Kind of Science*. The conference will bring together individuals from a broad range of fields to learn and interact and to get involved with NKS. Major conference features will include: A series of in-depth lectures by Stephen Wolfram on key aspects of *A New Kind of Science*; specialized sessions focusing on implications and applications for: computer science, biological sciences, social sciences, physical sciences, fundamental physics, mathematics, foundations of mathematics, philosophy, future technology and more...; workshops and case studies on: modeling, computer experimentation, defining NKS problems, NKS Explorer, NKS-based education and more...; group discussions on selected topics of mutual interest; poster/demo sessions providing opportunities to showcase NKS-based work; gallery of NKS-based art pieces; special preconference Mathematica course.
NKS 2003 will be appropriate for anyone interested in learning about or pursuing the ideas of *A New Kind of Science*. Dr. Wolfram's core lectures will assume a background of general scientific knowledge at a basic college level. Specialized sessions will assume graduate-level knowledge of relevant fields.
Call for Materials: Being held only a year after the publication of *A New Kind of Science*, the focus of NKS 2003 will be on education about the ideas and implications of the book. NKS 2003 will nevertheless provide poster sessions, demo stations, and an art gallery to showcase projects that are under development based on the book. Please see http://www.wolframscience.com/conference/2003/materials.html.
Deadline: The deadline is April 15, 2003 for new submissions.
Contact: email: nks2003@wolframscience.com, 1-800-WOLFRAM (965-3726).
Information: http://www.wolframscience.com/conference/2003/.

July 2003

* 6–10 **New Connections between Dynamical Systems and PDEs**, AIM Research Conference Center, Palo Alto, California.
Topics: This workshop will explore new connections between dynamical systems and PDEs. Specific topics include emerging connections between Mather sets and viscosity solutions of nonlinear PDEs, recent progress on PDE versions of Aubrey-Mather theory, and KAM theory for dynamical systems and its PDE analogues.
Organizers: L. C. Evans and P. Rabinowitz.
Deadline: March 21, 2003.
Information: http://aimath.org/ARCC/workshops/dynpde.html.

* 6–19 **Computational Noncommutative Algebra and Applications**, NATO Advanced Study Institute, Il Ciocco Resort, Tuscany, Italy.
Description: Computational algebra has emerged as a key tool to handle the most demanding applications of signal and image

processing in remote sensing, computer vision, medical image processing, and biological signal processing. This ASI will allow a new generation of mathematicians and engineers to share the insights of some of the outstanding contributors to the state of the art.
Organizer: J. Byrnes, asi@prometheus-inc.com.
Principal Speakers: Y. Aloimonos, Univ. of Maryland, Action representations and harmonic computational geometry; W. Baylis, Univ. of Windsor, Canada, The geometry of paravector space, with applications to relativistic physics and The quantum/classical interface: a geometric approach from the classical side; T. Beth, Univ. Karlsruhe, Germany, Group algebraic approach to algorithm engineering; J. Byrnes, Prometheus Inc., USA, Algebraic structures of certain complementary sequences and their wireless communications ramifications; P. Cannarsa, Univ. di Roma 'Tor Vergata', Italy, Algebraic methods in control theory: an overview; M. Clausen, Univ. Bonn, Germany, A group theoretical approach to content-based multimedia information retrieval; A. Dress, Univ. Bielefeld, Germany, In a vector space, all bases are equal, but some are more equal; T. Havel, MIT, USA, Representations of quantum operations in geometric algebra; V. Labunets, Urals State Technical Univ., Russia, Toward realization of the 'Erlangen Program' for classical and quantum theory of signals/systems on groups and hypergroups and Applications of Clifford algebras to multispectral image processing and recognition; J. Lasenby, Cambridge Univ., UK, Using Clifford/geometric algebra in robotics; W. Moran, Prometheus Inc., USA, Group theory in radar and signal processing; N. Nikolski, V. A. Steklov Mathematical Institute, Russia, Harmonic analysis methods for infinite dimensional dynamic systems; B. Saffari, Univ. Paris-Sud, France, Complex-valued Golay pairs of complementary sequences; J. Selig, South Bank Univ., UK, Lie Groups and Lie algebras in robotics; G. Sobczyk, Univ. de las Americas, Mexico, Clifford geometric algebras in multilinear algebra and non-Euclidean geometries; G. Sommer, Christian-Albrechts-Univ. zu Kiel, Germany, The Clifford algebra approach to robotic vision; R. Tolimieri, Prometheus Inc., USA, Group theoretic methods in image processing.
Deadline: Applications and abstracts for poster sessions are due May 1, 2003.
Funding: Limited funding is available.
Information: Visit http://www.prometheus-inc.com/asi/algebra2003/.

* 6–23 **33rd Probability Summer School**, Saint-Flour, France.
Program: Three 15-hour courses will be given. The speakers this year will be A. Dembo, "Multiscale occupation analysis: Favourite points, cover times and fractals"; T. Funaki, "Stochastic interface models"; P. Massart, "Concentration inequalities and model selection".
Deadline: For registration: April 4. Registration can be made online on our website.
Organizer: J. Picard, Laboratoire de Mathématiques Appliquées, Univ. Blaise Pascal, 63177 Aubiere, France.
Information: Further information can be obtained at http://wwwlma.univ-bpclermont.fr/stflour/; email: stflour@math.univ-bpclermont.fr.

* 7–18 **Advanced School in Basic Algebraic Geometry**, The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy.
Organizer: L. Göttsche.
Directors: L. Göttsche (ICTP); C. S. Seshadri (Chennai Mathematical Institute, Chennai, India); A. Vistoli (Univ. di Bologna, Italy).
Information: http://agenda.ictp.trieste.it/smr.php?1487/.

August 2003

* 4–9 **Holomorphic Curves in Contact Geometry**, AIM Research Conference Center, Palo Alto, California.
Topics: This workshop, sponsored by AIM and the NSF, will be devoted to the development of holomorphic curve techniques in contact geometry and topology. The advent of holomorphic curve techniques in contact topology, as exemplified in Symplectic Field Theory (SFT), and asymptotically holomorphic curve techniques, in the spirit of Donaldson, has allowed one to use a diverse set of geometric, analytic, and topological tools when studying contact structures. The goal of this workshop is to expose, develop, and apply these tools.
Organizers: Y. Eliashberg and J. Etnyre.
Deadline: March 28, 2003.
Information: Visit http://aimath.org/ARCC/workshops/contactgeom2.html.

* 4–22 **Summer School and Conference on Real Algebraic Geometry and Its Applications**, The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy.
Directors: F. Broglia (Pisa, Italy); K. Kurdyka (Chambery, France); M. F. Roy (Rennes, France); C. Traverso (Pisa, Italy).
Deadline: March 15, 2003.
Information: http://agenda.ictp.trieste.it/smr.php?1537/.

* 6–9 **Workshop, Spectral Geometry of Manifolds with Boundary and Decomposition of Manifolds**, Field Laboratory Søminestation at Holbæk Bay near Copenhagen, Roskilde University, Denmark.
Topics: Well-posed boundary value problems for operators of Dirac type, spectral invariants in global analysis, gluing formulas.
Organizers: B. Booss-Bavnbek (Roskilde), G. Grubb (Copenhagen), K. P. Wojciechowski (IUPUI, Indianapolis).
Participants: B. Booss-Bavnbek, G. Grubb, Y. Lee, M. Lesch, P. Loya, R. Nest, V. Nistor, J. Park, P. Piazza, A. Savin, E. Schrohe, D. Vassilevich, K. P. Wojciechowski, C. Zhu.
Contact: email: workshop@mmf.ruc.dk.
Information: http://mmf.ruc.dk/conf/Workshop/.

* 12–16 **Conformal Structure in Geometry, Analysis, and Physics**, AIM Research Conference Center, Palo Alto, California.
Topics: This workshop, sponsored by AIM and the NSF, will be devoted to differential invariants of conformal and analogous structures and their applications in geometric analysis and physics. The main questions to be addressed concern solidifying the link between invariant differential operators on the one hand and curvature prescription problems, sharp inequalities, scattering theory, overdetermined systems, and other important analytic problems on the other. We especially hope to advance the understanding of the Q-curvature and to set an agenda for communication among geometers, analysts, and physicists.
Organizers: T. Branson, M. Eastwood, A. R. Gover, and M. Wang.
Deadline: April 4, 2003.
Information: http://aimath.org/ARCC/workshops/confstruct.html.

September 2003

* 15–21 **International Conference on Nonlinear Partial Differential Equations**, Alushta, the Crimea, Ukraine.
Topics: 1. Qualitative properties of solutions of nonlinear elliptic and parabolic equations. 2. Degenerate nonlinear elliptic and parabolic equations and their applications in mathematical physics. 3. Blow-up and singularities for quasilinear elliptic and parabolic equations. 4. Homogenization problems for nonlinear PDE. 5. Free boundary problems
Visas: All foreign nationals coming to the Ukraine should have a valid passport and most will need a visa. If you need a visa, we advise you to apply for one at a Ukrainian consular office in your country.
Information: Contacts: A. A. Kovalevsky, Institute of Applied Mathematics & Mechanics of NAS of Ukraine, R. Luxemburg St. 74 83114 Donetsk, Ukraine Phone: 38(0622)552394 Fax: 38(0622)552265; email: NPDE2003@iamm.ac.donetsk.ua; http://www.iamm.ac.donetsk.ua/mmain.html.

* 30–October 3 **International Silk Road Conference: Quantum Theory, Partial Differential Equations of Mathematical Physics and Their Applications**, Tashkent, Uzbekistan.
Organizer: Inst. of Nuclear Physics, Uzbekistan Acad. of Sciences, Tashkent; The INTAS–Network Project Nr.15,2000, entitled "Partial Differential Equations Modelling Semiconductors"; The Wolfgang Pauli Institute, Vienna, http://www.wpi.ac.at/; The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy.
Topics: (1) Nonlinear Differential Equations of Mathematical Physics, (2) Inverse problems, (3) Kinetic equations and Problems of Statistical Physics, (4) Mathematical Modelling of Semiconductors, (5) Fluid Dynamics, (6) Spectral properties of Hamiltonians, (7) Quantum Semiconductor Device Models and Nanotechnology.
Language: English at plenary sessions and both English and Russian at parallel sessions.
Deadlines: Applications for financial support: April 15, 2003. Registration form: May 1, 2003. Abstract: June 1, 2003. The second information bulletin: May 1, 2003. The conference fee: September 1, 2003.
Information: Principal Contacts: Further information about the conference may be obtained from: M. Yu. Rasulova, Institute of Nuclear Physics, Ulugbek, Tashkent, 702132, Uzbekistan; tel.: +998712/(3712) 60 67 53; fax: +998712/(3712) 64 25 90; email: qtpm2003@suninp.tashkent.su or wittgenstein.mathematik@univie.ac.at.

October 2003

* 2–4 **AMS Joint Central and Western Section Meeting**, University of Colorado, Boulder, Colorado
Information: http://www.ams.org/amsmtgs/sectional.html.

April 2004

* 3–4 **AMS Western Section Meeting**, University of Southern California, Los Angeles, California.
Information: http://www.ams.org/amsmtgs/sectional.html.

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 2004

* 2–4 **ICNPAA 2004: Mathematical Problems in Engineering and Aerospace Sciences**, The West University of Timisoara, Romania.
Scope: Includes mathematical problems in all areas of engineering and aerospace sciences.
Organizers: S. Sivasundaram (general chair); S. Balint (local organizing chair).
Sponsors: IFNA, IFIP, IEEE, AIAA.
Deadlines: 1. Organizing Special Session (the title of the session, name of the organizers): June 30, 2003; to send the title of the talks and speakers: November 30, 2003. 2. For abstracts of the talks: January 30, 2004; full papers for the proceedings: July 15, 2004.
Contact: ICNPAA 2004, 104, Snow Goose Ct., Daytona Beach, FL 32119; email: SeenithI@aol.com.
Information: http://www.icnpaa.com/.

September 2004

* 1–6 (REVISED) **Sixth Pan-African Congress of Mathematicians**, Institute National des Sciences Appliquees et del la Technologie (INSAT), Université 7 Novembre à Carthage, Tunis, Tunisia.
Theme: Mathematical Sciences and the Development of Africa—Challenges for Building a Knowledge Society in Africa. The scientific program will include plenary lectures, invited lectures, contributed research papers, a symposium, and exhibitions.
Contact: Those interested in speaking at or participating in the congress are invited to contact: A. Boukricha, local organizing committee, Université de Tunis EL Manar Departement de Mathématiques, Faculté des Sciences De Tunis, 1060 Tunis, Tunisia; email: aboukricha@fst.rnu.tn.
Information: Please submit curriculum vitae and abstract to: J. Persens, Pres., African Mathematical Union, Univ. of the Western Cape, Private Bag X17, Belville 7535, South Africa; jpersens@uwc.ac.za; and copies to: J.-P. Ezin, Sec. General, African Mathematical Union, Institut de Mathematiques et de Sciences Physiques, BP613, Porto Novo, Benin; jpezin@syfed.bj.refer.org.

October 2004

* 16–17 **AMS Southeastern Section Meeting**, Vanderbilt University, Nashville, Tennessee.
Information: http://www.ams.org/amsmtgs/sectional.html.

* 16–17 **AMS Western Section Meeting**, University of New Mexico, Albuquerque, New Mexico.
Information: http://www.ams.org/amsmtgs/sectional.html.