

Mathematics Calendar

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

March 1999

* 1-4 **Interfaces in Continuous Media**, Centro de Matemática e Aplicações Fundamentais da Universidade de Lisboa, Lisbon, Portugal.

Focus: In the last decades there have been remarkable advancements in the study of nonlinear partial differential equations, motivated not only by the twentieth century developments in pure and applied mathematics, but also by the industrial modelling and scientific progress. New theories and techniques have been developed to address the search for classical and generalized solutions for equations or systems of partial differential equations, and their qualitative properties such as regularity or asymptotic behavior. Most of these questions are still poorly understood and new emerging issues in physical sciences, mathematical finance, and other applied disciplines proved a test for known theories and an inspirational source for the introduction of new ones.

Scientific Organizers: M. Chipot (Univ. Zürich) and J. F. Rodrigues (Univ. Lisboa).

Support: A certain number of grants for young mathematicians, as well as for other scientists, will be available for participation at the meetings and for short or medium stays in Lisbon to stimulate joint collaboration and research.

Information: M. Morales, NPDEA-99 secretariat, CMAF/Univ. de Lisboa, Av. Prof. Gama Pinto 2, 1699 Lisboa Codex, Portugal; e-mail: npde99@lmc.fc.ul.pt; <http://npde99.lmc.fc.ul.pt>; tel: 351-1-790-48-62; fax: 351-1-795-42-88.

1-4 **M/SET 99, International Conference on Mathematics/Science Education & Technology**, San Antonio, Texas. (Sept. 1998, p. 1050)

3-5 **Theory and Applications of Realtime Computation**, Research Institute for Mathematical Sciences, Kyoto University, Kyoto, Japan. (Sept. 1998, p. 1050)

* 3, 10, 17 and 24 **Seminari Les bases matemàtiques de la civilització tecnològica**, Auditori de la Caixa de Sabadell, Carrer d'en Font, 1, Sabadell, Spain.

Organizer: J. Agudé (Universitat Autònoma de Barcelona) and Centre de Recerca Matemàtica.

Speakers: J. L. Fernández (Universidad Autónoma de Madrid), P. Morillo (Universitat Politècnica de Catalunya), A. M. Colell (Universitat Pompeu Fabra), H. Neunzert (Institut für Techno- und Wirtschaftsmathematik), J. Mosterín (Instituto de Filosofía, CSIC), J. Girbau (Universitat Autònoma de Barcelona), I. Colomina (Institut Cartogràfic de Catalunya).

Information: e-mail: crm@crm.es or aguade@mat.uab.es.

5 **Audition**, University of Minnesota, Minneapolis, Minnesota. (Jun/Jul. 1998, p. 758)

* 5-6 **VI Trobada de Topologia**, Universitat de les Illes Balears, Palma de Mallorca.

Organizers: M. Castellet (Centre de Recerca Matemàtica), A. Murillo (Universidad de Málaga) and J. A. Crespo (Universitat de les Illes Balears) and Centre de Recerca Matemàtica.

Speakers: J. A. Crespo (Universitat de les Illes Balears), W. Dicks (Universitat Autònoma de Barcelona), A. G. Tato (Universidad de Santiago de Compostela), M. Izquierdo (Mälardalen Univ.), V. Muñoz (Universidad de Málaga), J. J. Nuño (Universitat de València).

Information: For further information: <http://crm.es/info/vi-et/>.

7-13 **Dirac Operators, Index Theorems and Numerical Invariants of Manifolds**, Greifswald University, Germany, Island of Usedom. (Jun/Jul. 1998, p. 759)

7-14 **Eighth International Conference on Geometry**, Nahsholim, Israel. (Sept. 1998, p. 1050)

8-12 **Audition**, University of Minnesota, Minneapolis, Minnesota. (Jun/Jul. 1998, p.

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 **six 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 e-MATH on the World Wide Web. To access e-MATH, use the URL: <http://e-math.ams.org/> (or <http://www.ams.org/>). (For those with VT100-type terminals or for those without WWW browsing software, connect to e-MATH via Telnet (telnet e-math.ams.org; login and password e-math) and use the Lynx option from the main menu.)

759)

* **8-12 Fields Institute Workshop on Interactive Measure-Valued Processes**, The Fields Institute for Research in Mathematical Sciences, Toronto, Ontario, Canada.

Organizers: D. Dawson (Fields Institute), E. Perkins (UBC).

Confirmed Speakers: T. Cox (Syracuse Univ.), R. Durrett (Cornell Univ.), S. Evans (Univ. of California, Berkeley), K. Fleischmann (Weierstrass Institute for Applied Analysis and Stochastics), A. Greven (Univ. of Erlangen), T. Kurtz (Univ. of Wisconsin, Madison), S. Kuznetsov (Univ. of Colorado, Boulder), J.-F. Le Gall (École Normale Supérieure, Paris), Y. Le Jan (Université Paris Sud), V. Limic (Univ. of California, San Diego), P. March (Ohio State Univ.), C. Mueller (Univ. of Rochester), L. Mytnik (Technion Univ.), R. Tribe (Univ. of Warwick), J. Vaillancourt (Université de Sherbrooke).

Information: For further information about the workshop and the program, please see the program Web site <http://www.fields.utoronto.ca/probability.html>, or write to: The Fields Institute for Research in Mathematical Sciences, 222 College Street, Second Floor, Toronto, Ontario, M5T 3J1, Canada; Tel: 416-348-9710; Fax: 416-348-9385; e-mail: measure@fields.utoronto.ca.

12-13 AMS Southeastern Section Meeting, University of Florida, Gainesville, Florida. (Jun/Jul. 1998, p. 759)

13-15 International Conference on Scientific Computations, Beirut Arab University, Beirut, Lebanon. (Oct. 1998, p. 1228)

13-17 1999 Arizona Winter School: Local-to-Global Principles in Arithmetical Algebraic Geometry, University of Arizona, Tucson, Arizona. (Oct. 1998, p. 1229)

16-18 German-American Academic Council Lectures on Prophet Theory, Lehigh University, Bethlehem, Pennsylvania. (Feb. 1999, p. 276)

16-20 1999 UAB-GIT International Conference on Differential Equations and Mathematical Physics, University of Alabama at Birmingham, Birmingham, Alabama. (Jun/Jul. 1998, p. 759)

* **16-21 Japan-U.S. Mathematics Institute (JAMI) Conference and Workshop on Minimal Surfaces, Geometric Analysis, and Symplectic Geometry**, Johns Hopkins University, Baltimore, Maryland.

Organizing Committee: K. Fukaya, W. Minicozzi, J. Morava, S. Nishikawa, and J. Spruck. **Confirmed Speakers:** T. Colding, K. Fukaya, M. Furuta, H. Hofer, N. Kapouleas, P. Kronheimer, W. Meeks, K. Ono, H. Rosenberg, R. Schoen, G. Tian, and K. Yamada.

Program: The program will focus on recent developments in minimal surface theory and symplectic geometry, and more broadly in geometric analysis, emphasizing common themes and techniques. Activities include a conference March 19-21 with in-

vited lectures and a workshop March 16-18 where there will be informal sessions and short talks.

Information: Please contact Johns Hopkins University, Department of Mathematics, Baltimore, MD 21218; tel: 410-516-4178; fax: 410-516-5549; e-mail: jami@math.jhu.edu; <http://mathnt.mat.jhu.edu/JAMI98-99/>.

17-19 International Conference on Differential Equations and Nonlinear Mechanics, University of Central Florida, Orlando, Florida. (Nov. 1998, p. 1377)

* **18-20 Seminar on Stochastic Process 1999**, Fields Institute, Toronto, Ontario, Canada.

Program Committee: E. Cinlar (Princeton Univ.), S. Evans (UC Berkeley), G. Lawler (Duke Univ.), T. Salisbury (York Univ.), M. Sharpe (UCSD), R. Williams (UCSD).

Plenary Speakers: D. Aldous (UC Berkeley), B. Driver (UCSD), H. Föllmer (Humboldt Univ.), L. Mytnik (Technion), W. Werner (Univ. Paris Sud).

Information: Additional information is available from the Web site <http://www.math.yorku.ca/Probability/ssp.html>; or contact T. Salisbury, e-mail: salt@nexus.yorku.ca; address: The Fields Institute for Research in Mathematical Sciences, 222 College Street, Second Floor, Toronto, Ontario, M5T 3J1, Canada; tel: 416-348-9710; fax: 416-348-9385.

18-21 AMS Central Sectional Meeting, University of Illinois-Urbana, Urbana, Illinois. (Aug. 1997, p. 846)

20-23 ASL Annual Meeting, San Diego, California. (Jan. 1999, p. 65)

20-23 Measurable and Topological Dynamics, University of Maryland, College Park, Maryland. (Dec. 1998, p. 1500)

* **21-23 DIMACS Workshop on Large Scale Discrete Optimization in Robotics and Vision**, DIMACS Center, Rutgers University, Piscataway, New Jersey.

Organizers: J. Malik (malik@cs.berkeley.edu), J. Ponce (ponce@cs.uiuc.edu).

Local Arrangements: P. Pravato (pravato@dimacs.rutgers.edu), 732-445-5928.

Aim: This workshop will address the fundamental mathematical and computational problems underlying computer vision and robotics. A set of talks from major researchers in the field will help give a perspective on the leading issues today and the likely directions for future progress. Points of contact with computer science theory and algorithms, probabilistic inference, and other areas of applied mathematics in general will be stressed.

Information: Contact: J. Malik (malik@cs.berkeley.edu); WWW: <http://dimacs.rutgers.edu/Workshops/Robotics/>.

22-24 Ninth SIAM Conference on Parallel Processing for Scientific Computing,

Adam's Mark San Antonio-Riverwalk Hotel, San Antonio, Texas. (Jun/Jul. 1998, p. 759)

25-27 (Revised dates) DIMACS Workshop on Mobile Networks and Computing, DIMACS Center, Rutgers University, Piscataway, New Jersey. (Sept. 1998, p. 1050)

24-27 Fifth SIAM Conference on Mathematical and Computational Issues in the Geosciences, Adam's Mark San Antonio-Riverwalk Hotel, San Antonio, Texas. (Jun/Jul. 1998, p. 759)

25-26 Third International Multidisciplinary Congress in Quality and Reliability, Paris, France. (Aug. 1998, p. 899)

25-28 International Conference on Algebra and its Applications, Ohio University, Athens, Ohio. (Oct. 1998, p. 1229)

* **29-31 Workshop on Smooth Ergodic Theory**, Lisbon, Portugal.

Invited Speakers: D. Dolgopyat (Univ. of California, Berkeley), M. Pollicott (Univ. of Manchester), J. Schmeling (Freie Universität, Berlin), N. Simányi (József Attila University, Szeged), D. Szász (Mathematical Institute, Hungarian Academy of Sciences, Budapest), M. Viana (Instituto de Matematica Pura e Aplicada, Rio de Janeiro).

Organizers: L. Barreira, P. Duarte, and R. Loja Fernandes.

Support: Partially supported by FCT's Pluri-annual Funding Program, and Projects ICCTI and Praxis XXI.

Information: Center for Mathematical Analysis, Geometry, and Dynamical Systems, Instituto Superior Técnico, Lisbon, Portugal; e-mail: cam@math.ist.utl.pt; Center's homepage: <http://www.math.ist.utl.pt/cam/>.

29-April 1 British Mathematical Colloquium, University of Southampton, Southampton, England. (Dec. 1998, p. 1500)

April 1999

6-9 London Mathematical Society Invited Lecture Series, University of Bath, Bath, United Kingdom. (Oct. 1998, p. 1229)

7-9 Fourth International Conference on Typed Lambda Calculi and Applications (TLCA'99), l'Aquila, Italy. (Jun/Jul. 1998, p. 759)

10-11 AMS Western Sectional Meeting, University of Nevada, Las Vegas, NV. (Apr. 1997, p. 481)

Information: W. Drady, wsd@ams.org.

12-15 Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, Athens, Georgia. (Apr. 1998, p. 535)

* **12-30 School on Differential Geometry**, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy.

Directors: B. Dubrovin (ISAS/SISSA, Trieste), G. Tian (MIT, USA).

Information: Abdus Salam, International Centre for Theoretical Physics, Strada Costiera, 11-34014 Trieste, Italy; tel: +39-40-2240111;

fax: +39-40-224163; e-mail: sci_info@ictp.trieste.it; <http://www.ictp.trieste.it/>.

15-17 **4th April Dialogue**, National Science Foundation and the Hilton Arlington & Towers, Arlington, Virginia. (Feb. 1999, p. 276)

15-20 **Second International Conference on Multivariate Scattered Data Fitting**, Puerto Vallarta, Jalisco, Mexico. (Jan. 1999, p. 65)

15-17 **Complex Dynamics: The University of Arkansas Annual Lectures in the Mathematical Sciences.**, University of Arkansas, Fayetteville, Arkansas. (Dec. 1998, p. 1500)

15-17 **Thirty-second Biennial Kappa Mu Epsilon National Convention**, Florida Southern College, Lakeland, Florida. (Dec. 1998, p. 1500)

16-18 **Workshop on Logic and Cognitive Science**, University of Pennsylvania, Institute for Research in Cognitive Science (IRCS), Philadelphia, Pennsylvania. (Jan. 1999, p. 65)

17-18 **Riviere-Fabes Symposium on Analysis and PDE**, University of Minnesota, Minneapolis, Minnesota. (Sept. 1998, p. 1050, Feb. 1999, p. 276)

18-24 **Spring School on Functional Analysis**, Paseky nad Jizerou, Czech Republic. (Feb. 1999, p. 276)

* 19-23 **Fields Institute Workshop on Numerical Methods and Stochastics**, The Fields Institute for Research in Mathematical Sciences, Toronto, Ontario, Canada.

Organizing Committee: T. Lyons (Imperial College), T. Salisbury (York Univ.).

Invited Speakers: D. Crisan (Imperial College, London), A. M. Davie (Univ. of Edinburgh), J. D. Gaines (Univ. of Edinburgh), A. Guionnet (Université de Paris Sud), T. J. Lyons (Imperial College, London), P. Del Moral (Université Paul Sabatier), P. Protter (Purdue Univ.), J. B. Walsh (Univ. of British Columbia).

Information: For further information about the workshop and the program, please see the program Web site <http://www.fields.utoronto.ca/probability.html>, or write to: The Fields Institute for Research in Mathematical Sciences, 222 College Street, Second Floor, Toronto, Ontario, M5T 3J1, Canada; Tel: 416-348-9710; Fax: 416-348-9385; e-mail: numeric@fields.utoronto.ca.

19-23 **Local Interaction and Global Phenomena in Vegetation and Other Systems**, University of Minnesota, Minneapolis, Minnesota. (Jun/Jul. 1998, p. 759)

* 22-24 **Hyperbolic Systems of Conservation Laws**, Centro de Matemática e Aplicações Fundamentais da Universidade de Lisboa, Lisbon, Portugal.

Focus: In the last decades there have been remarkable advancements in the study of nonlinear partial differential equations, motivated not only by the twentieth century

developments in pure and applied mathematics, but also by the industrial modelling and scientific progress. New theories and techniques have been developed to address the search for classical and generalized solutions for equations or systems of partial differential equations, and their qualitative properties such as regularity or asymptotic behavior. Most of these questions are still poorly understood and new emerging issues in physical sciences, mathematical finance, and other applied disciplines proved a test for known theories and an inspirational source for the introduction of new ones.

Scientific Organizers: J. P. Dias (Univ. Lisboa) and P. LeFloch (CNRS/EC. Polytechnique).

Support: A certain number of grants for young mathematicians, as well as for other scientists, will be available for participation at the meetings and for short or medium stays in Lisbon to stimulate joint collaboration and research.

Information: M. Morales, NPDEA-99 secretariat, CMAF/Univ. de Lisboa, Av. Prof. Gama Pinto 2, 1699 Lisboa Codex, Portugal; e-mail: npde99@lmc.fc.ul.pt; <http://npde99.lmc.fc.ul.pt>; tel: 351-1-790-48-62; fax: 351-1-795-42-88.

22-24 **Inverse Problems in Stratified Media**, University of Aarhus, Aarhus, Denmark. (Jan. 1999, p. 66)

24-25 **AMS Eastern Sectional Meeting**, State University of New York, Buffalo, NY. (Apr. 1997, p. 481)

Information: W. Drady, wsd@ams.org.

* 24-27 **IMA "HOT TOPICS" Workshop: Challenges and Opportunities in Genomics: Production, Storage, Mining and Use**, Institute for Mathematics and Its Applications, University of Minnesota, Minneapolis, Minnesota.

Organizers: S. Kim, V. Kumar, D. Misemer, D. Polla, I. Rigoutsos.

Information: Institute for Mathematics and Its Applications, Univ. of Minnesota, 207 Church St. S.E., 400 Lind Hall, Minneapolis, MN 55455; Phone: 612-624-6066, e-mail: staff@ima.umn.edu or Web page: <http://www.ima.umn.edu/biology/spring/genomics.html>.

May 1999

* 10-August 20 **Complexity, Computation and the Physics of Information**, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom.

Organizers: A. Albrecht (Imperial), P. Knight (Imperial), R. M. Solovay (Berkeley), W. Zurek (LANL).

Objective: The study of information is linked to a wide range of interdisciplinary research which is defining new frontiers in physics and mathematics. Mathematical notions such as "algorithmic entropy" (or "algorithmic complexity") are central to the fundamental problem of constructing rigorous definitions of entropy and information,

while the importance of these concepts to key physical processes (including quantum cosmology, the arrow of time, exotic quantum systems and signal transmission) attracts the attention of theoretical and experimental physicists. An exciting application is that of "quantum computation", which defines challenging problems in mathematics, materials physics, and computer science. The program will bring together members of all the relevant scientific communities to focus on the physics, mathematics, and applications of information and entropy.

Information: Contact the Director, Isaac Newton Institute for Mathematical Sciences, 20 Clarkson Road, Cambridge CB3 0EH, UK; tel: 01223-335999; e-mail: info@newton.cam.ac.uk. Information can also be found on the World Wide Web at the URL <http://www.newton.cam.ac.uk/>.

7-8 **1999 ASL Spring Meeting**, New Orleans, Louisiana (in conjunction with a meeting of the Central Division of the American Philosophical Association, May 5-8, 1999). (Oct. 1998, p. 1229)

10-12 **Sixth SIAM Conference on Optimization**, Radisson Atlanta Hotel, Atlanta, Georgia. (Jun/Jul. 1998, p. 760)

12-15 **1999 SIAM Annual Meeting**, Radisson Atlanta Hotel, Atlanta, Georgia. (Jun/Jul. 1998, p. 760)

13-14 **Introduction to Epidemiology and Immunology**, University of Minnesota, Minneapolis, Minnesota. (Jun/Jul. 1998, p. 760)

* 13-16 **Nonlinear Parabolic Problems**, Centro de Matemática e Aplicações Fundamentais da Universidade de Lisboa, Lisbon, Portugal.

Focus: In the last decades there have been remarkable advancements in the study of nonlinear partial differential equations, motivated not only by the twentieth century developments in pure and applied mathematics, but also by the industrial modelling and scientific progress. New theories and techniques have been developed to address the search for classical and generalized solutions for equations or systems of partial differential equations, and their qualitative properties such as regularity or asymptotic behavior. Most of these questions are still poorly understood and new emerging issues in physical sciences, mathematical finance, and other applied disciplines proved a test for known theories and an inspirational source for the introduction of new ones.

Scientific Organizers: H. Amann (Univ. Zürich), c. Rocha (Inst. Sup. Técnico) and J. F. Rodrigues (Univ. Lisboa).

Support: A certain number of grants for young mathematicians, as well as for other scientists, will be available for participation at the meetings and for short or medium stays in Lisbon to stimulate joint collaboration and research.

Information: M. Morales, NPDEA-99 secretariat, CMAF/Univ. de Lisboa, Av. Prof. Gama Pinto 2, 1699 Lisboa Codex, Portu-

gal; e-mail: npde99@lmc.fc.ul.pt; <http://npde99.lmc.fc.ul.pt/>; tel: 351-1-790-48-62; fax: 351-1-795-42-88.

14-16 **BLMS'99, Joint meeting of the London Mathematical Society and the Belgian Mathematical Society**, Université Libre de Bruxelles, Brussels, Belgium. (Sept. 1998, p. 1050)

* 14-16 **Conference on Geometry and Topology, 1999**, Harvard University, Cambridge, Massachusetts.

Speakers: M. F. Atiyah (Univ. of Cambridge), R. H. Bott (Harvard Univ.), F. Hirzebruch (Max Planck Institute for Mathematics), I. M. Singer (MIT).

Information: For more information, contact stanek@math.harvard.edu.

* 16-23 **The 37th International Symposium on Functional Equations**, Marshall University, Huntington, West Virginia.

Participation: Participation is by invitation of the scientific committee. Those seeking an invitation should write to the local organizer, describing the nature of their interest in the subject and preferably including a list of relevant publications.

Honorary Chairman: J. Aczel (Waterloo).

Scientific Committee: W. Benz (Hamburg), R. Ger (Katowice), J. Raetz (Bern), L. Reich (Graz), A. Sklar (Chicago).

Local Organizer: B. Ebanks, 37th ISFE, Department of Mathematics, Marshall Univ., Huntington, WV 25755; e-mail: math@marshall.edu; fax: 304-696-4646.

* 17-19 **Stochastic Evolution Equations**, Centro de Matemática e Aplicações Fundamentais da Universidade de Lisboa, Lisbon, Portugal.

Focus: In the last decades there have been remarkable advancements in the study of nonlinear partial differential equations, motivated not only by the twentieth century developments in pure and applied mathematics, but also by the industrial modelling and scientific progress. New theories and techniques have been developed to address the search for classical and generalized solutions for equations or systems of partial differential equations, and their qualitative properties such as regularity or asymptotic behavior. Most of these questions are still poorly understood and new emerging issues in physical sciences, mathematical finance, and other applied disciplines proved a test for known theories and an inspirational source for the introduction of new ones.

Scientific Organizers: K. D. Elworthy (Univ. Warwick), and I. Simão, (Univ. Lisboa).

Support: A certain number of grants for young mathematicians, as well as for other scientists, will be available for participation at the meetings and for short or medium stays in Lisbon to stimulate joint collaboration and research.

Information: M. Morales, NPDEA-99 secretariat, CMAF/Univ. de Lisboa, Av. Prof. Gama Pinto 2, 1699 Lisboa Codex, Portugal; e-mail:

npde99@lmc.fc.ul.pt; <http://npde99.lmc.fc.ul.pt/>; tel: 351-1-790-48-62; fax: 351-1-795-42-88.

17-21 **Mathematical Approaches for Emerging and Reemerging Infectious Diseases**, University of Minnesota, Minneapolis, Minnesota. (Jun/Jul. 1998, p. 760)

* 17-21 **Méthodes homologiques**, C.I.R.M. (Centre International de Rencontres Mathématiques), Luminy, France.
Information: <http://www.math.univ-montp2.fr/vaquerias/homologiques.html>.

19-22 **Fourth International Joint Meeting of the AMS and the Sociedad Matematica Mexicana (SMM)**, University of North Texas, Denton, Texas. (Nov. 1998, p. 1377)

19-22 **Mathematics from Physics: Recent Trends and New Developments**, University of Illinois, Urbana, Illinois. (Jan. 1999, p. 66)

* 21-22 **Fourth Mississippi State Conference On Differential Equations & Computational Simulations**, Mississippi State University, Mississippi State, Mississippi.
Organized By: Department of Mathematics and Statistics and NSF Engineering Research Center.

Co-Sponsor: Electronic Journal of Differential Equations.

Principal Speakers: L. C. Evans (Univ. of California, Berkeley), C. Farhat (Univ. of Colorado, Boulder), I. Fonseca (Carnegie Mellon Univ.), A. Noor (Univ. of Virginia), J. Serrin (Univ. of Minnesota), P. Waltman (Emory Univ.), M. Wheeler (Univ. of Texas, Austin).

Aim: This interdisciplinary conference will provide a joint forum where mathematicians, scientists, and engineers from academia and industry can exchange research ideas involving theoretical and applied developments in differential equations and computational simulations. In addition to the seven principal lectures, there will be sessions of contributed talks. This conference is held bi-annually. Reviewed manuscripts will be published as a special issue of the Electronic Journal of Differential Equations.

Abstracts: Abstracts for contributed papers should be submitted no later than March 31, 1999, to the program chairman, J. Zhu, jzhu@math.msstate.edu.

Information: For further information on the conference organization, program, and submission of abstracts, visit the conference Web page at <http://www.msstate.edu/Dept/Math/conf.html>, or contact one of the following organizers: R. Shivaji, Department of Mathematics & Statistics, Mississippi State, MS 39762; e-mail: shivaji@math.msstate.edu; tel: 601-325-3414/7142; fax: 601-325-0005; B. Soni, NSF Engineering Research Center, Mississippi State, MS 39762; e-mail: bsoni@erc.msstate.edu; tel: 601-325-8278; fax: 601-325-7692.

24-26 **International Symposium on Dis-**

continuous Galerkin Methods: Theory, Computation and Applications, Salve Regina College, Newport, Rhode Island. (Jan. 1999, p. 66)

24-28 **Fifth SIAM Conference on Applications of Dynamical Systems**, Snowbird Ski and Summer Resort, Snowbird, Utah. (Jun/Jul. 1998, p. 760)

* 25-29 **International Conference on Dynamical System Modelling and Stability Investigation (DSMSI'99)**, Kiev, Ukraine.

Organizers: Kiev State University, Institute of Mechanics, Institute of Mathematics, and the Institute of Space Research.

Organizing Committee: R. Agarwal (Singapore), A. E. Babayev (Kiev), O. G. Cheborin (Kiev), J. Diblik (Brno, Czech Republic), D. Ya. Khusainov (Kiev), Y. A. Komarov (Kiev), A. T. Kozhmetov (Uzbekistan), A. G. Mazko (Kiev), E. O. Tsitritsky (Kiev).

Invited Speakers: R. Agarwal (Singapore), S. N. Chow (Atlanta, USA), A. Friedman (Minnesota, USA), K. P. Hadeler (Tubingen, Germany), A. Iserles (Cambridge, England), I. Kiguradze (Tbilisi, Georgia), T. Kusano (Fukuoka, Japan), J. Mawhin (Louvain-La-Neuve, Belgium), F. Neuman (Brno, Czech Republic), I. Prigogine (Brussels, Belgium), G. Sell (Minneapolis, USA), R. Teman (Orsay, France).

Purpose: The purpose of the conference is to bring together leading experts from all over the world to present their recent achievements, and discuss and share new ideas relevant to their fields. The conference will feature invited lectures by well-known speakers from different countries, as well as talks on topics of current interest in the field. Sessions will be organized for contributed papers.

Topics: The conference will cover the following topics: (1) Mathematical methods of stability investigation; (2) Mathematical modeling of processes. Contributed papers will be accepted based on the abstracts.

Registration: Registration fee is \$50 (\$10 for participants from CIS countries), which includes a free copy of the Book of Abstracts.

Deadline: The deadline is March 15, 1999.

Abstracts: Please check our Web site at <http://www.pcg.kiev.ua/conf/> for an abstract template in LaTeX format. Otherwise please send your abstract in the following form to the address below or e-mail in Word format. The abstract should have left and right margins of 3 cm, and should be camera-ready for printing.

Information: Please contact us at: DSMSI'99 Conference, Dept. of Complex System Simulation, Faculty of Cybernetics, Kiev University, Vladimirska str., 64, 252033, Kiev, Ukraine; e-mail: conf@stab.cyb.univ.kiev.ua; <http://www.pcg.kiev.ua/conf/>; tel: (380 44) 266 4086; Fax: (380 44) 266 1059.

26-28 **Crystallographic Groups and their Generalizations II**, K. U. Leuven (Campus Kortrijk), Kortrijk, Belgium. (Aug. 1998, p. 899)

- 26-29 **Third International Conference on Dynamic Systems and Applications**, Atlanta, Georgia. (Sept. 1998, p. 1051)
- 26-29 **Twelfth Biennial Conference of the Association of Christians in the Mathematical Sciences**, Gordon College, Wenham, MA. (Oct. 1998, p. 1229)
- 26-30 **Great Plains Operator Theory Symposium**, Iowa State University, Ames, Iowa. (Feb. 1999, p. 276)
- 27-29 **Mathematics Towards The Third Millennium**, Accademia Nazionale dei Lincei, Rome, Italy. (Oct. 1998, p. 1230)
- 29-June 1 **CMS Summer 1999 Meeting**, Memorial University of Newfoundland, St. John's, Newfoundland. (Feb. 1999, p. 276)
- * 30-June 5 **Spring School on Analysis**, Paseky nad Jizerou, Czech Republic.
Organizers: J. Lukes, L. Pick (Charles University, Prague, Czech Republic).
Topic: Function spaces and their applications.
Aim: The purpose of this meeting is to bring together adepts who share a common interest in the field. Graduate students and others beginning their mathematical careers are encouraged to participate.
Speakers: J. Appell (Universitaet Wuerzburg, Germany), Nonlinear Operators in Function Spaces; E. Pustylnik (Technion-Israel Institute of Technology, Haifa, Israel), The Structure of Intermediate Spaces and Real Interpolation; C. Perez (Universidad Autonoma de Madrid, Spain), Poincare-Sobolev Inequalities and Weighted Estimates for Singular Integral Operators and Fractional Integrals.
Information: Department of Mathematical Analysis, Sokolovska 83, 18675 Praha 8, Czech Republic; e-mail: pasejune@karlin.mff.cuni.cz; tel/fax: +420-2-232-3390; http://www.karlin.mff.cuni.cz/katedry/kma/ss.
- * 31-June 4 **Partial Differential Equations Meeting**, Saint Jean de Monts, France.
Scientific Committee: A. Bachelot, J.-M. Bony, J.-Y. Chemin, F. Colombini, B. Davies, A. Grigis, G. Grubb, B. Helffer, L. Hörmander, A. Melin, G. Métivier, J. Nourrigat, D. Robert.
List of Speakers: P. G. Ciarlet (Paris 6), H. Hedenmalm (Lund), R. Mazzeo (Stanford), V. Maz'ya (Linköping), G. Popov (Nantes), M. Pulvirenti (Rome), S. Schochet (Tel Aviv), A. Shnirelman (Tel Aviv), D. Tataru (Northwestern Univ.), A. Uribe (Michigan), G. Velo (Bologna), E. Zuazua (Aut. Madrid).
Information: The Village Vacances Familles of St. Jean de Monts will provide lodging facilities (cost 1 450FF). Registration and information soon available at <http://www.maths.univ-rennes1.fr/edp/stjean.html>.
- 31-June 4 **The 19th International Conference on Distributed Computing Systems (ICDCS '99)**, Austin, Texas. (Nov. 1998, p. 1377)
- 31-June 4 **Turku Symposium on Number Theory in Memory of Kustaa Inkeri**, University of Turku, Finland. (Sept. 1998, p. 1051)
- June 1999**
- 1-3 **International Conference on Differential Equations and Related Topics**, Pusan National University, Pusan, Korea. (Jan. 1999, p. 66)
- 1-4 **Day on Diffraction'99**, St. Petersburg Branch of Steklov Mathematical Institute, St. Petersburg, Russia. (Nov. 1998, p. 1377)
- * 2-4 **Joint DIMACS-DIMATIA Workshop on Algebraic Methods and Arithmetic Circuits**, DIMACS Center, Rutgers University, Piscataway, New Jersey.
Organizers: E. Allender (allender@cs.rutgers.edu), J. Krajicek (krajicek@math.cas.cz), P. Pudlak (pudlak@matsrv.math.cas.cz), M. Saks (saks@math.rutgers.edu).
Aim: This workshop will bring together people working with algebraic methods and arithmetic circuits as they relate to diverse areas of theoretical computer science, including the complexity of propositional proof systems (propositional, algebraic, and others), algebraic and symbolic computation, complexity of computing over the reals and other fields (along with connections to the model theory of fields), and connections to Boolean circuit complexity and the study of complexity classes.
Local Arrangements: P. Pravato (pravato@dimacs.rutgers.edu), 732-445-5928.
Information: Contact E. Allender (allender@cs.rutgers.edu); WWW: <http://dimacs.rutgers.edu/Workshops/DIMATIAII/>.
- 3-5 **Applications of Heavy Tailed Distributions in Economics, Engineering and Statistics**, American University, Washington, DC. (Jan. 1999, p. 66)
- 4-9 **Geometry, Analysis & Mathematical Physics: Analysis & Geometry**, Obernai (near Strasbourg), France. (Jan. 1999, p. 66)
- 6-19 **Second Summer School of Mathematical Biology**, Termoli, Italy. (Feb. 1999, p. 276)
- 7-9 **Theoretical, Experimental & Computational Mechanics**, Cincinnati, Ohio. (Oct. 1998, p. 1230)
- 7-11 **11th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC'99)**, Universitat Politècnica de Catalunya, Barcelona, Spain. (Feb. 1999, p. 276)
- 7-11 **From Individual to Aggregation: Modeling Animal Grouping**, University of Minnesota, Minneapolis, Minnesota. (Jun/Jul. 1998, p. 760)
- 7-11 **International Society of The Arts, Mathematics, and Architecture (ISAMA99)**, San Sebastian, Spain. (Jan. 1999, p. 67)
- 7-11 **Random Matrices and Their Applications: Quantum Chaos, GUE Conjecture for Zeros of Zeta Functions, Combinatorics, and All That**, Mathematical Sciences Research Institute, Berkeley, California. (Jun/Jul. 1998, p. 760)
- 7-11 **Second IMACS Conference on Monte Carlo Methods**, Varna, Bulgaria. (Sept. 1998, p. 1051)
- 10-12 **1999 International Conference on Preconditioning Techniques for Large Sparse Matrix Problems in Industrial Applications**, University of Minnesota, Hubert H. Humphrey Institute, Minneapolis, Minnesota. (Nov. 1998, p. 1378)
- 13-17 **Conference on The Mathematics of Public-Key Cryptography**, The Fields Institute, Toronto, Ontario, Canada. (Sept. 1998, p. 1051)
- * 13-17 **Computability Theory and Applications (Joint Summer Research Conference Series)**, University of Colorado, Boulder, Colorado.
Information: See <http://www.ams.org/meetings/src.html> for more information.
- * 13-17 **From Manifolds to Singular Varieties (Joint Summer Research Conference Series)**, University of Colorado, Boulder, Colorado.
Information: See <http://www.ams.org/meetings/src.html> for more information.
- 14-19 **MATHTOOLS'99, 2nd International Conference "Tools for Mathematical Modelling"**, Saint-Petersburg State Technical University, Saint-Petersburg, Russia. (Dec. 1998, p. 1501)
- * 16-19 **Theoretical Fluid Dynamics and Related Topics**, Centro de Matemática e Aplicações Fundamentais da Universidade de Lisboa, Lisbon, Portugal.
Focus: In the last decades there have been remarkable advancements in the study of nonlinear partial differential equations, motivated not only by the twentieth century developments in pure and applied mathematics, but also by the industrial modelling and scientific progress. New theories and techniques have been developed to address the search for classical and generalized solutions for equations or systems of partial differential equations, and their qualitative properties such as regularity or asymptotic behavior. Most of these questions are still poorly understood and new emerging issues in physical sciences, mathematical finance, and other applied disciplines proved a test for known theories and an inspirational source for the introduction of new ones.
Scientific Organizers: H. Beirão da Veiga (Univ. Pisa), A. Sequeira (Inst. Sup. Técnico) and V. A. Solonnikov (Univ. Lisboa and POMI St. Petersburg).
Support: A certain number of grants for young mathematicians, as well as for other scientists, will be available for participation at the meetings and for short or medium stays in Lisbon to stimulate joint collaboration and research.

- Information:** M. Morales, NPDEA-99 secretariat, CMAF/Univ. de Lisboa, Av. Prof. Gama Pinto 2, 1699 Lisboa Codex, Portugal; e-mail: npde99@lmc.fc.ul.pt; http://npde99.lmc.fc.ul.pt/; tel: 351-1-790-48-62; fax: 351-1-795-42-88.
- 17-20 **Six Projects in Mathematics and Physics-A Cooperation Project between Scientists from the CIS and Germany**, Technische Universitaet Berlin, Germany. (Aug. 1998, p. 899)
- *20-24 **Homotopy Methods in Algebraic Topology (Joint Summer Research Conference Series)**, University of Colorado, Boulder, Colorado.
Information: See <http://www.ams.org/meetings/src.html> for more information.
- 20-24 **The Sixth Conference of The Canadian Number Theory Association (CNTA '99)**, University of Manitoba, Winnipeg, Canada. (Jan. 1999, p. 67)
- 21-25 **International Workshop on Special Functions: Asymptotics, Harmonic Analysis, and Mathematical Physics**, City University of Hong Kong, Hong Kong, China. (Nov. 1998, p. 1378)
- 21-July 2 **Computational Algebra With Applications**, University of Wyoming, Laramie, Wyoming. (Jan. 1999, p. 67)
- 23-25 **Bar-Ilan Symposium on The Foundations of Artificial Intelligence (BISFAI-99)**, Ramat Gan, Israel. (Jan. 1999, p. 67)
- *23-26 **Nonlinear Modeling and Control, An International Seminar**, Nayanova University, Samara, Russia.
Languages: English and Russian.
Aim: The seminar's aim is the exchange of information about recent trends in mathematical modeling and control theory and their applications to various problems in physics, chemistry, biology, medicine, economy, and industrial concerns.
Call For Papers: Original papers related to the aim of seminar are solicited. Potential speakers should submit an abstract before April 30. The cover page should contain title, affiliation, and e-mail address of each author. Electronic submissions in L^AT_EX are encouraged.
Sponsors: Samara Municipal Nayanova University, Samara State University, Russian Academy of Natural Sciences, International Federation of Nonlinear Analysts.
Information: V. Sobolev (organizer, e-mail: sable@ssu.samara.ru or sobolev@gw.mnu.samara.ru) or He. Gorelova (seminar coordinator), e-mail: modeling@ssu.samara.ru; Nayanova University, Molodogvardeiskaya 196, Samara, 443001, Russia.
- 25-30 **Intermediate Questions of Model Theory and Universal Algebra**, Novosibirsk State Technical University & Math. Institute of Siberian branch of Academy of Russia, Novosibirsk, Russia. (Sept. 1998, p. 1052)
- *25-30 **Number Theory and Arithmetical Geometry: Arakelov Geometry and Applications**, Obernai(near Strasbourg), France.
Organizers: J.-B. Bost (chairman, Orsay), U. Jannsen (vice-chairman, Cologne) in association with the European Mathematical Society.
Speakers: A. Abbes (Paris-Nord), J.-M. Bismut (Orsay), J.I. Burgos (Barcelona), P. Cohen (Lille), S. David (Paris), R. Ferretti (Zürich), C. Gasbarri (Cologne), H. Gillet (Chicago), H. Köhler (Bonn), J. Kramer (Berlin), S. S. Kudla (Maryland), K. Künnemann (Cologne), J.-H. Evertse (Leiden), V. Maillot (Paris), M. McQuillan (Oxford), D. Roessler (Bures-sur-Yvette), L. Szpiro (Orsay), H. Tamvakis (Philadelphia), E. Ullmo (Orsay), P. Vojta (Berkeley).
Focus: The conference will focus on: Foundational results in Arakelov geometry: hermitian geometry and analysis on complex manifolds, intersection theory and Riemann-Roch theorems; Applications to diophantine approximation; Arakelov geometry of abelian varieties and their moduli spaces.
Participation: The conference is open to researchers worldwide, whether from industry or academia. Participation will be limited to 100. The emphasis will be on discussion about new developments. A poster session will be organized. The registration fee covers full board and lodging. Grants will be available for younger scientists, in particular those from less favored regions in Europe.
Deadline: Application deadline: March 22, 1999.
Information: For information and application forms, contact the head of the EU-RESCO Unit: J. Hendekovic, European Science Foundation, 1 quai Lezay-Marnésia, 67080 Strasbourg Cedex, France; tel: +33-3-88-76-71-35; fax: +33-3-88-36-69-87; e-mail: euresco@esf.org; on-line information and application on WWW at <http://www.esf.org/euresco/>.
- *26-July 2 **Algebra and Discrete Mathematics, Infinite Combinatorics and their Impact on Algebra**, Hattingen, Germany.
Organizers: R. Göbel (vice-chairman, Essen), S. Shelah (chairman, Jerusalem) in association with the European Mathematical Society.
Speakers: B. Balcar (Prague), A. Blass (Michigan), J. Brendle (Kobe, Japan), M. Droste (Dresden), M. Dugas (Waco, Texas), M. Dzamonja (Norwich), P. Eklof (Irvine), M. Goldstern (Vienna), R. Grossberg (Pittsburgh), W. Hodges (London), E. Hrushovsky (IHES & Jerusalem), T. Hyttinen (Helsinki), M. Kojman (Negev, Israel), P. Komjath (Budapest), S. Koppelberg (Berlin), M. C. Laskowski (Maryland), C. Metelli (Napoli), D. Monk (Colorado), O. Spinas (Zürich), S. Thomas (New York), B. Velickovic (Paris), M. Ziegler (Freiburg).
Focus: The conference will focus on combinatorial methods and results in set theory and their application to algebra. It will emphasize recent advances in cardinal arithmetic and highlight the interplay between these aspects of set theory and various subfields of algebra. This interplay is particularly significant for commutative algebra and module theory. Some recent exciting results will be developed explicitly by invited speakers who have research backgrounds in either logic or algebra. The central goal of the meeting will be to enhance this type of interaction between algebra and infinite combinatorics.
Participation: The conference is open to researchers world-wide, whether from industry or academia. Participation is limited to 100. The emphasis will be on discussion about new developments. A poster session will be organized. The registration fee covers full board and lodging. A limited number of grants will be available upon request.
Deadline: Application deadline: March 1, 1999.
Information: For information and application forms, contact the head of the EU-RESCO unit: J. Hendekovic, European Science Foundation, 1 quai Lezay-Marnésia, 67080 Strasbourg Cedex, France; tel: +33-3-88-76-71-35; fax: +33-3-88-36-69-87; e-mail: euresco@esf.org; on-line information and application on WWW at <http://www.esf.org/euresco/>.
- 27-July 1 **1999 Summer Conference on Brauer Groups**, University of Montana, Missoula, Montana. (Jan. 1999, p. 67)
- 27-July 4 **ACACSE'99: Applied Clifford Algebra in Cybernetics, Robotics, Image Processing and Engineering International Workshop as a Special Parallel Session of the 5th International Conference on Clifford Algebras and their Applications in Mathematical Physics**, Ixtapa, Zihuatanejo, Mexico. (Jan. 1999, p. 67)
- 27-July 25 **Summer Mathematics Program for Undergraduate Women**, Carleton and St. Olaf Colleges, Northfield, Minnesota. (Feb. 1999, p. 277)
- *28-30 **International Conference on Geometry**, University of Porto, Portugal.
Speakers: There will be one-hour invited lectures given by the following speakers: L. Cordero (Universidad de Santiago de Compostela), A. Costa (UNED, Madrid), R. Donagi (Univ. of Pennsylvania), T. Monteiro Fernandes (Universidade de Lisboa), I. Penkov (Univ. of California, Riverside), J. Rhodes (Univ. of California, Berkeley). The program of the conference will also include sessions for shorter communications (30 minutes).
Organizers: G. Chaves, P. Gothen, L. Magalhaes.
Support: Supported by the Fundacao para a Ciencia e a Tecnologia.
Information: If you wish to receive the second announcement, to be available in February 1999, please send a message with your name and e-mail address to agc99@fc.up.pt. For more information, please contact

the Organizing Committee at agc99@fc.up.pt, or see the Web page: <http://www.fc.up.pt/mp/agc99.htm>.

*28-July 2 **Fourth Hungarian Colloquium on Limit Theorems in Probability and Statistics**, Balatonlelle, Hungary.

Aim: To honour 65th birthday of Pal Revesz.
Organizing Committee: I. Berkes, E. Csaki, A. Foldes, T. Mori, D. Szasz.

Information: e-mail: limit@math-inst.hu;
Web: <http://www.math-inst.hu/~limit/>.

*28-July 2 **Nonlinear Partial Differential Equations: An International Conference in Memory of S. N. Kruzhkov**, Université de Franche-Comté, Besançon, France.

Aim: S. N. Kruzhkov (1936-1997), professor at the M. V. Lomonosov Moscow State University, greatly influenced the theory of nonlinear partial differential equations by many important and very original contributions. The objective of this international conference is to pay just tribute to his memory, by presenting recent developments in the domains where his ideas are particularly fruitful.

Steering Committee: N. S. Bakhvalov, M. G. Crandall, C. M. Dafermos, P.-L. Lions, O. A. Oleinik.

Topics: Conservation laws; Hamilton-Jacobi equations and viscosity solutions; Entropic solutions and renormalized solutions; Nonlinear parabolic problems; Korteweg-de Vries equation.

Speakers: Plenary lectures will be delivered by the members of the steering committee and: A. Bressan (Trieste), X. Cabré (Barcelone), Th. Gallouët (Marseille), A. S. Kalashnikov (Moscow), C. E. Kenig (Chicago), S. Luckhaus (Leipzig), F. Otto (Santa Barbara), E. Yu. Panov (Noygorod), D. Serre (Lyon), I. V. Skrypnik (Donetsk), H. M. Soner (Princeton), P. E. Souganidis (Madison), L. G. Tartar (Pittsburgh), J. L. Vazquez (Madrid).

Deadline: For submissions: March 21, 1999.
Scientific Committee: C. Bardos (Paris), G. Barles (Tours), Ph. Bénilan (Besançon), J. Carrillo (Madrid), V. L. Kamynin (Moscow), F. Murat (Paris), B. Perthame (Paris).

Organizing Committee: B. Andreianov, L. Barthélemy, A. Benabdallah, Ph. Bénilan, J.-C. Miellou, M. Mokhtar-Kharroubi, F. Simondon; secretaries: M. Diguglielmo, C. Paganì.

Registration Fees: FF 500 (FF 600 if paid after May 16, 1999).

Registration: Use the Web page for on-line registration or send the pre-registration form (available on the Web site as PostScript) to Mme. Diguglielmo, Équipe de Mathématiques, Université de Franche-Comté, 25030 Besançon Cedex, France - fax (33)3.81.66.65.26.

Information: For further information consult the Web page <http://pegase.univ-fcomte.fr/Actu/Index.html> or contact the organizing committee by e-mail: SNKConf@math.univ-fcomte.fr, or by telephone (33)3.81.66.63.40.

29-July 3 **Theory and Mathematics in Biology and Medicine (TMBM99)**, Vrije Universiteit, Amsterdam, The Netherlands (Sept. 1998, p. 1052)

*30-July 1 **International Workshop on Implicit Computational Complexity (ICC'99)**, Trento, Italy.

Aim: The mission of ICC'99 is to further the development of implicit computational complexity and its applications, in particular in database theory, functional programming languages, and formal methods in hardware and software design. In addition to research reports on advances in implicit computational complexity, the workshop will strive to facilitate the discovery of conceptual bridges and unifying principles.

Format: The workshop will meet on Wednesday, June 30, and Thursday, July 1, 1999, preceding LICS'99 and RTA'99. The program will consist of about 6 invited talks and sessions of contributed papers. The last workshop event will be a session of invited talks in finite model theory, joint with two other FLoC workshops: "Complexity-theoretic and Recursion-theoretic methods in Databases, Artificial Intelligence and Finite Model Theory" and "Finite Model Theory And Its Applications".

Topics: The workshop is dedicated to the characterization, analysis, comparison, development, and implementation of computational complexity issues within the following areas and approaches: Descriptive complexity (finite model theory); proof theory (e.g. bounded arithmetic, other weak theories, weak higher order logics, linear logic); applicative formalisms (e.g. function algebras, ramified recurrence, control mechanisms in lambda calculi).

Submissions: Proposed contributions to the workshop program are keenly sought. The results must be unpublished and not submitted for publication elsewhere. However, papers submitted to LICS'99 may also be submitted to ICC'99; acceptance to LICS (announced well before acceptance to ICC) will take precedence. One author of each accepted paper is expected to present the paper at the meeting.

Important Dates: Submission deadline: Tuesday, March 2, 1999; acceptance notifications: by Wednesday, March 31; workshop dates: June 30 and July 1; LICS'99 dates: July 2 through 5; FLoC (conferences, workshops, tutorials): June 30 through July 12.

Program Committee: S. Bellantoni (Toronto), S. Buss (San Diego), R. Constable (Cornell), S. Cook (Toronto), A. Dawar (Cambridge, co-chair), E. Graedel (Aachen), Y. Gurevich (Microsoft), L. Hella (Helsinki), N. Jones (DIKU Copenhagen), C. Lautemann (Mainz), D. Leivant (Indiana, co-chair), H. Schwichtenberg (Munich), J. Tyszkiewicz (Warsaw and New South Wales).

Information: <http://icc99.cs.indiana.edu/>.

*30-July 2 **First International Symposium**

on Imprecise Probabilities and Their Applications, Ghent, Belgium.

Themes: The first symposium will emphasize two main themes: (i) The connections between the various mathematical theories of imprecise probability and the possibility of achieving some kind of unification or synthesis; (ii) applications to other fields: Important work has already been done in statistics, economics, finance, experimental psychology, artificial intelligence and expert systems, engineering, systems theory, reliability, robotics and other fields, and it is expected that some of this work will be surveyed at the symposium.

Information: Those wishing to present a paper at the symposium should submit a short paper of 4 to 10 pages by 31 January 1999. We expect electronic submissions, in Postscript format. Papers should be sent to the symposium e-mail address: isipta99@ensmain.rug.ac.be. Please see the symposium Web site <http://ensmain.rug.ac.be/~isipta99/> for detailed instructions about how to submit papers and for further information about the symposium.

July 1999

2-5 **Fourteenth Annual IEEE Symposium on Logic in Computer Science**, Trento, Italy. (Dec. 1998, p. 1501)

2-10 **The 1999 Federated Logic Conference (FLoC '99)**, Trento, Italy. (Sept. 1998, p. 1052)

*4-9 **Geometry and Quantization of Symplectic Manifolds and Quantum Integrable Systems**, Centro Stefano Franscini, Ascona, Switzerland.

Topics: Geometry and quantization of symplectic and Poisson manifolds, (quantum) group actions, quantum integrable systems.

Organizers: A. Alekseev (Uppsala), G. Felder (Zurich).

Speakers: B. Enriquez (Ecole Polytechnique), P. Etingof (Harvard), E. Frenkel (Berkeley), I. Frenkel* (Yale), K. Gawedzki (IHES), V. Guillemin (MIT), L. Jeffrey (Toronto), M. Jimbo (Kyoto), M. Kontsevich* (IHES), B. Kostant (MIT), E. Meinrenken (Toronto), T. Ratiu (Lausanne), M. Semenov-Tian-Shansky (Dijon), A. Varchenko (Chapel Hill), M. Vergne (Paris), A. Veselov (Loughborough), C. Woodward (Rutgers); *to be confirmed.

Deadline: April 15, 1999. Participation is limited to 60 persons.

Information: <http://www.math.ethz.ch/~felder/CSF99/>.

4-11 **Paul Erdős and His Mathematics**, Hungarian Academy of Sciences, Budapest, Hungary. (Jan. 1999, p. 68)

5-9 **The Fourth International Congress on Industrial and Applied Mathematics**, Edinburgh, Scotland. (Dec. 1997, p. 1500)

*5-9 **Quadratic Forms and Their Applications**, University College, Dublin, Ireland.

Support: The conference is supported by the European Union under the auspices of

the TMR network project "K-theory, linear algebraic groups and related structures". Some financial support is available, particularly for young researchers from EU states.

Aim: The aim of the meeting is to bring together mathematicians who are either specialists in quadratic forms and related topics, or use them in their research. There will be 12 1-hour survey lectures and a number of shorter research talks.

Speakers: A. Berge (Bordeaux), J. J. Boutros (Paris), J. H. Conway (Princeton), D. Hoffmann (Besancon), C. Kearton (Durham), M. Kreck (Mainz/Oberwolfach), R. Parimala (Bombay), M. Rost (Regensburg), W. Scharlau (Muenster), J. P. Serre (Paris), M. Taylor (Manchester), C. T. C. Wall (Liverpool).

Organizers: E. Bayer-Fluckiger (Besancon, bayer@math.univ-fcomte.fr), D. Lewis (Dublin, dwlewis@ollamh.ucd.ie), A. Ranicki (Edinburgh, aar@maths.ed.ac.uk).

Information: Electronic registration: <http://mathsa.ucd.ie/TMR/quadconf.html>.

7-17 **Emerging Applications of Dynamical Systems**, University of Minnesota, Minneapolis, Minnesota. (Mar. 1998, p. 427)

8-9 **100 Years After Sophus Lie**, University of Leipzig, Leipzig, Germany. (Feb. 1999, p. 277)

9-17 **Computation in Group Theory and Geometry**, University of Warwick, Coventry, England. (Jan. 1999, p. 68)

11-August 15 **Seventh Annual Canada/USA Mathcamp**, University of Washington, Seattle, Washington. (Dec. 1998, p. 1502)

12-16 **First International Joint Meeting of the American Mathematical Society and the Australian Mathematical Society**, Melbourne, Australia. (Nov. 1998, p. 1378)

12-17 **Journées Arithmétiques 1999**, Rome, Italy. (May 1998, p. 642)

12-18 **Third International Conference on Symmetry in Nonlinear Mathematical Physics**, Kiev, Ukraine. (Jan. 1999, p. 68)

13-16 **International Conference on Applied Partial Differential Equations**, Tongji University, Shanghai, China. (Oct. 1998, p. 1230)

15-17 **Applications of Physics in Financial Analysis**, Trinity College, Dublin, Ireland. (Feb. 1999, p. 277)

16-18 **ESA'99 - Seventh Annual European Symposium on Algorithms**, Prague, Czech Republic. (Jan. 1999, p. 68)

16-18 **Olga Taussky Todd Celebration of Careers in Mathematics for Women**, Mathematical Sciences Research Institute, Berkeley, California. (Jan. 1999, p. 68)

18-23 **Vision Geometry VIII (SD90)**, Colorado Convention Center, Denver, Colorado. (Jan. 1999, p. 69)

* 18-28 **Foundations of Computational Mathematics (FoCM)**, University of Oxford,

Oxford, England.

Speakers: J. Ball (Oxford), I. Daubechies (Princeton), J.-P. Dedieu (Toulouse), A. Edelman (MIT), J. Heintz (Buenos Aires), N. Higham (Manchester), R. McLachlan (Massey), J. Nocedal (Northwestern), E. Novak (Erlangen), P. Olver (Minneapolis), B. Poonen (UC Berkeley), R. Rannacher (Heidelberg), G. Sapiro (Minneapolis), A. Stuart (Stanford), D. Talay (Sophia Antipolis), W. Thurston (UC Davis), L. Valiant (Harvard), S.-T. Yau (Harvard).

Workshops: Nonplenary lectures will be held in fourteen workshops, spanning a broad range of mathematical topics. The workshops are: Analysis and approximation of infinite-dimensional problems; Approximation theory; Complexity theory, real machines and homotopy; Computational dynamics; Computational geometry and topology; Computational number theory; Geometric integration and computation on manifolds; Information-based complexity; Multiresolution, computer vision and PDEs; Numerical linear algebra; Optimization; Relations to computer science; Stochastic computation; Symbolic algebra and analysis.

Information: See <http://www.dampt.cam.ac.uk/user/na/FoCM/> for details.

* 19-December 17 **Structure Formation in the Universe**, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom.

Organizers: V. A. Rubakov (Institute for Nuclear Research, Moscow), P. J. Steinhardt (Pennsylvania), N. G. Turok (Cambridge).

Objective: Understanding how structure emerged in the universe provides one of today's great scientific challenges. Huge quantities of new astronomical data, including maps of the cosmic microwave sky fluctuations and of the distribution of galaxies, are providing stringent constraints on possible theories. At the same time, the results of new particle physics experiments are beginning to imply very strong constraints on the possible nature of the dark matter. The two structure formation theories investigated in most detail so far involve quantum fluctuations generated during inflation, and cosmic defects produced at symmetry breaking phase transitions. Both theories involve physics beyond the standard model, and if either is proven correct, there will be important implications for high energy theory.

Topics: The program will begin with discussions of the latest observational data, including the statistical techniques needed to analyze the new data sets, with the aim of fitting the observations together in a coherent framework. Extensions and variants of current theories, as well as entirely novel approaches will then be considered. During the program, fundamental questions regarding the big bang and inflationary theory will be addressed, as well as connections to string theory and quantum gravity.

Information: Contact the Director, Isaac Newton Institute for Mathematical Sciences,

20 Clarkson Road, Cambridge CB3 0EH, UK; tel: 01223-335999; e-mail: info@newton.cam.ac.uk. Information can also be found on the World Wide Web at the URL <http://www.newton.cam.ac.uk/>.

* 20-24 **IMA "HOT TOPICS" Workshop: Decision Making Under Uncertainty: Energy and Environmental Models**, Institute for Mathematics and Its Applications, University of Minnesota, Minneapolis, Minnesota. **Organizers:** F. Auzerais, B. Burrige, C. Greengard, R. Wets.

Information: Institute for Mathematics and Its Applications, Univ. of Minnesota, 207 Church St. S.E., 400 Lind Hall, Minneapolis, MN 55455; Phone: 612-624-6066, e-mail: staff@ima.umn.edu or Web page: <http://www.ima.umn.edu/decision-making/decision-making.html>.

* 25-30 **DO'99, A DIMACS/RUTCOR Workshop on Discrete Optimization**, Rutgers University, Piscataway, New Jersey.

Goal: The main goal of DO'99 is to survey the state of the art in discrete optimization.

Speakers: Expository lectures presenting the major subareas of the field, including its theoretical foundations, methodology and applications will be given by E. Balas, E. Boros, P. Brucker, R. Burkard, V. Chvatal, G. Cornuejols, Y. Crama, F. Glover, P. Hammer, A. Hoffman, K. Hoffman, T. Ibaraki, B. Korte, J. Krarup, T. Magnanti, S. Martello, G. Nemhauser, B. Pulleyblank, A. Recski, P. Toth, D. Williamson, H. Wolkowicz, and L. Wolsey. DO'99 will also feature a series of sessions for contributed papers representing the latest research results in the field.

Organizers: E. Boros (boros@rutcor.rutgers.edu), P. L. Hammer (hammer@rutcor.rutgers.edu).

Information: Additional information can be found on the internet at <http://rutcor.rutgers.edu/~do99/>. Abstracts of papers intended for possible presentation at DO'99 should be sent to DO'99 (DO'99@rutcor.rutgers.edu) or: DO'99-RUTCOR, Rutgers Univ., 640 Bartholomew Road, Piscataway, NJ 08854. For registration and information, please contact the organizers.

25-August 7 **The 14th International Conference on Banach Algebras**, Pomona College, Claremont, California. (Sept. 1998, p. 1052)

* 26-30 **Conference on Functional Differential and Difference Equations**, Instituto Superior Técnico, Lisbon, Portugal.

Organizers: T. Faria (Universidade de Lisboa), J. M. Ferreira e Pedro Freitas (Center for Mathematical Analysis, Geometry and Dynamical Systems, IST).

Invited Speakers: O. Arino (Pau), W. Fitzgibbon (Houston), I. Gyori (Veszprém), J. K. Hale (Georgia Tech.), W. Huang (Alabama), T. Krisztin (Szeged), G. Ladas (Rhode Island), S. Lunel (Amsterdam), M. Mackey (McGill), J. Mallet-Paret (Brown), R. Nussbaum (Rutgers), W. Oliva (Lisbon), G. Sell (Minnesota),

G. Wirsching (Eichstätt), J. Wu (Toronto).

Registration and Deadlines: Participants should send an application to the organizers not later than March 15, 1999. Please use the registration form on the WWW address below. Titles and abstracts for 25-minute contributed talks are due by April 5, 1999. The registration fee is 5,000 Portuguese Escudos (free for students).

Information: For additional information please contact the organizers at: Dep. Matemática, Instituto Superior Técnico, Av. Rovisco Pais 1, P-1096 Lisboa, Portugal; fax: 351-1-3523014; e-mail: fdde99@math.ist.utl.pt; WWW: <http://www.math.ist.utl.pt/fdde99/>.

26-30 **ENUMATH 99 - Third European Conference on Numerical Mathematics and Advanced Applications**, University of Jyväskylä, Jyväskylä, Finland. (Sept. 1998, p. 1052)

*26-30 **International Conference on Theory of Fixed Points and its Applications**, São Paulo, Brazil.

Scientific Committee: R. F. Brown (chair), A. Dold, E. Fadell, D. L. Gonçalves, B. Jiang. **Organizing Committee:** L. Borsari, D. L. Gonçalves (co-chair), P. Wong (co-chair).

Aim: The purpose of this conference is to bring together mathematicians working in the field of topological fixed point theory and related subjects, to exchange ideas and to present results of their current research. The focus will be on applications of Lefschetz/Nielsen theory as well as on new techniques that contribute to the advancement of topological fixed point theory.

Information: Details of the conference as well as the registration form are available on the Web page: <http://www.ime.usp.br/~fixpoint/>. To contact the organizing committee use the e-mail address: fixpoint@ime.usp.br; or the regular address: D. L. Gonçalves, Departamento de Matemática - IME-USP, Caixa Postal 66281 - Agencia Cidade de São Paulo, 05315-970 - São Paulo - SP - Brasil; e-mail: dlgoncal@ime.usp.br.

26-August 6 **SMS-NATO ASI: Integrable Systems: From Classical to Quantum**, Université de Montréal, Montréal, Canada. (Jan. 1999, p. 69)

*26-August 13 **School on Algebraic Geometry**, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy.

Directors: L. Göttliche (ICTP), J. Le Potier (Université de Paris VII, France), E. J. N. Looijenga (University of Utrecht, The Netherlands), M. S. Narasimhan (ICTP).

Deadline: Deadline for requesting participation: February 15, 1999.

Information: Abdus Salam International Centre for Theoretical Physics, Strada Costiera, 11-34014 Trieste, Italy; tel: +39-40-2240111; fax: +39-40-224163; e-mail: sci_info@ictp.trieste.it; <http://www.ictp.trieste.it/>.

*27-August 1 **Loops'99**, Czech University

of Agriculture, Prague, Czech Republic.

Focus: The number of new results in loop theory is steadily increasing and many of them deserve wider dissemination.

Program Committee: O. Chein, A. Drapal, M. Kinyon, H. Pflugfelder.

Organizing Committee: T. Kepka, P. Nemeč, J. D. Phillips.

Speakers: J. O. Ademiran, M. Akivis, M. Arkowitz, T. Bouetou, L. G. X. de Barros, A. Drapal, T. Foguel, V. V. Goldberg, E. Goodaire, O. Chein, M. Herzog, B. Im, R. Iordanescu, E. Jespers, K. W. Johnson, F. Kalhoff, T. Kepka, M. Kinyon, A. Kreuzer, K. Kunen, M. de Lourdes, G. E. Moorhouse, P. Nemeč, A. Nestorov, E. Paal, H. Pflugfelder, J. D. Phillips, C. Polcino-Millies, G. Rosenberger, L. Sabinin, T. Q. Sibley, A. R. T. Solarin, J. Stasheff, K. Strambach, B. Tasic, A. A. Ungar, H. Urbantke.

Fees: The conference fee is \$50 (paid on arrival). The price of accommodation (in well-equipped student dormitories) will be approximately \$15 per person per night in a double room and in a single room (these prices may change).

Information: If you are interested in this conference and wish to obtain further information, please contact (preferably by e-mail) any member of the local organizing committee: T. Kepka, Department of Algebra MFF UK, Sokolovska 83, 186 00 Praha 8, The Czech Republic, e-mail: kepka@karlin.mff.cuni.cz; P. Nemeč, Department of Mathematics, TF CZU Kamycka 129, 165 21 Praha 6 - Suchbát, The Czech Republic, e-mail: nemec@karlin.mff.cuni.cz or nemec@tf.czu.cz; Web page: <http://www.karlin.mff.cuni.cz/~loops99/>.

30-August 1 **The Second Annual Conference of Bridges: Mathematical Connections in Art, Music, and Science**, Southwestern College, Winfield, Kansas. (Jan. 1999, p. 69)

August 1999

August-December **MSRI Program in Galois Groups and Fundamental Groups**, Mathematical Sciences Research Institute, Berkeley, California. (Sept. 1998, p. 1053)

August-May 2000 **MSRI Program in Noncommutative Algebra**, Mathematical Sciences Research Institute, Berkeley, California. (Sept. 1998, p. 1053)

1-6 **1999 ASL European Summer Meeting (Logic Colloquium '99)**, Utrecht, The Netherlands. (Jan. 1999, p. 69)

1-7 **EQUADIFF 99**, Free University, Berlin, Germany. (Nov. 1998, p. 1378)

2-13 **IMA Summer Program: IMA Workshop on Codes, Systems and Graphical Models**, University of Minnesota, Minneapolis, Minnesota. (Jun/Jul. 1998, p. 760)

8-14 **Second International Conference on Boundary Value Problems, Integral Equations and Related Problems**, Chengde, Hebei, and Beijing, China. (Feb. 1999, p. 277)

9-14 **Gyorgy Alexits Memorial Conference**, Budapest, Hungary. (Jun/Jul. 1998, p. 760)

9-20 **Summer School on Empirical Processes**, University of Aarhus, Denmark. (Dec. 1998, p. 1502)

10-15 **International Conference on Mathematical Logic**, Novosibirsk, Russia. (Jan. 1999, p. 69)

16-18 **Conference in Honor of Daniel J. Kleitman's 65th Birthday**, M.I.T., Cambridge, Massachusetts. (Dec. 1998, p. 1502)

16-21 **International Conference on Differential and Functional Differential Equations**, Moscow, Russia. (Feb. 1999, p. 278)

*16-27 **Symposium on Arithmetic Fundamental Groups and Noncommutative Algebra**, Mathematical Sciences Research Institute, Berkeley, California.

Funding: The symposium is supported with a fund established by Dr. and Mrs C. V. Newsom in honor of the memory of J. von Neumann, along with funding from the National Security Agency.

Overview: Geometric considerations have dominated recent activity in both of these areas, which are linked by the themes of group actions and deformations. This symposium will focus on these two areas, and these links, bringing together aspects of algebraic geometry, field theory, number theory, representation theory, topology, ring theory, and group theory. Besides standing on its own, the symposium will also be useful to attendees intending to participate in the fall 1999 activities at MSRI, by providing mathematical background and context regarding these areas and their connections. The symposium will provide a presentation of key results in the areas covered, including an overview of current developments and research directions. The intended audience will include researchers from these and related fields, as well as recent Ph.D.s and advanced graduate students desiring a broader perspective on the areas. Special talks appropriate for nonexperts (including students and postdoctorals) will consist of interrelated minicourses, each of three or four lectures. These will systematically present one mathematical aspect providing coordinating background for individual lectures on current research topics.

Topics: Galois Theory Topics: Extensions of function fields, and the relationship to fundamental groups of varieties, give Galois theory its fundamentally geometric flavor. This holds even when the main consideration is to obtain information about the absolute Galois group of the rational numbers. The inverse Galois problem in recent years has advanced through the study of branched covers of the Riemann sphere, and of the corresponding arithmetic and geometric Galois groups. This approach draws on representation theory both of finite groups and of fundamental groups of moduli spaces, such as braid groups. Topology and deformation theory come

into play, along with a study of Galois actions, in understanding the arithmetic of covers, analyzing the absolute Galois group of the rationals, and in realizing finite groups as Galois groups. Other applications of this approach concern graph theory, cryptography, polynomial maps over finite fields, explicit forms of Hilbert's irreducibility theorem, and other constructive aspects of algebra. Fundamental groups of varieties defined over more general fields have been studied in part by specialization to varieties over the complex numbers, where classical topological methods can be used. Another recent approach has been to use patching and deformation methods in formal and rigid geometry, which extend complex methods to other settings. This latter approach has led to results about fundamental groups over fields of positive characteristic and about absolute Galois groups of function fields. Achievements here include Grothendieck's anabelian conjecture, arithmetic Galois groups appearing as extensions of known groups, Abhyankar's conjecture, and the geometric case of Shafarevich's conjecture. **Noncommutative Algebra Topics:** One of the striking changes in noncommutative algebra over the last decade has been in the emphasis on the study of concrete examples, frequently those that have arisen in neighboring areas, rather than on the abstract theory. This has led to some significant and unexpected interactions not only with other areas but also between some of the major areas of algebra. The most obvious example, of course, has been the rise of the whole area of quantum groups, with its applications to many areas of mathematics and physics, but there are numerous other examples. To give some examples: the application of the theory of simple rings and rings of differential operators have led to significant applications to Harish-Chandra's theory of eigendistributions, and the representation theory of reductive Lie algebras through the work of Wallach, Levasseur, and Stafford; methods of algebraic geometry have been successfully used by Tate and Van den Bergh to provide a detailed description of the properties of the Sklyanin algebras (These first appeared in Sklyanin's work on the Quantum Inverse Scattering Method, and are also fundamental to work on Noncommutative Geometry. Until the work of Tate and Van den Bergh, even a basis for these algebras was unknown.); several of the famous Kaplansky conjectures on Hopf algebras have been solved; Zelmanov made striking use of Jordan and Lie theory to solve the restricted Burnside problem. More recently, Kac, Martinez, and Zelmanov have used more ring-theoretic techniques to classify Jordan algebras with linear growth and to make substantial progress in the classification of super-conformal algebras. **Organizing Committee:** M. D. Fried (Univ. of California, Irvine), D. Harbater (Univ. of Pennsylvania), and L. W. Small (Univ. of California, San Diego).

Participation: The organizers actively seek participants from a wide variety of backgrounds, including recent Ph.D.s, students, and individuals not currently in the area who would benefit from the symposium topics. Women and underrepresented minorities are especially encouraged to consider attending. Everyone interested in receiving an invitation to attend should submit the following information before **April 1, 1999**, to AMS Symposium Coordinator, P. O. Box 6887, Providence, RI 02940; or by e-mail to wsd@ams.org. Please type or print the following: (1) Full name and mailing address; (2) phone numbers for office, home, and fax; (3) e-mail address; (4) your anticipated arrival/departure dates; (5) scientific background relevant to the symposium topics (please indicate if you are a student or when you received your Ph.D.); (6) the amount of financial assistance requested (or indicate if no support is required). Letters of invitation with specific offers of support (if any) will be mailed about mid May, along with information about the program, local housing, and travel. Participants will be responsible for making their own travel and housing arrangements. Conference funding from the endowment and grant is limited; individuals who can obtain support from other sources are encouraged to do so.

Information: Further details about the content of the symposium will appear on the MSRI Web site (<http://www.msri.org>), on <http://www.math.uci.edu/~mfried/#conf/>, and on e-Math. Questions about the scientific program should be addressed to the organizers at mfried@math.uci.edu, harbater@math.upenn.edu, or lwsml@ucsd.edu; questions of a nonscientific nature should be directed to the symposium coordinator at the address provided above.

Note: Both the Galois and Noncommutative Algebra programs plan workshops during the fall 1999 MSRI semester. The Galois program plans two during October: a) Constructive Galois Theory (week of October 4); b) Arithmetic fundamental groups and moduli spaces (week of October 11). The Noncommutative Algebra program plans a workshop on Hopf algebras in late October to be followed by workshops, in the winter, on combinatorial algebra and interactions between algebraic geometry and noncommutative ring theory. Details for these will also appear on the MSRI Web site.

19-21 **20th Anniversary of Boundary Elements Conference (BEM 20)**, University of Central Florida, Orlando, Florida. (Mar. 1998, p. 427)

20-26 **Eleventh International Congress of Logic, Methodology and Philosophy of Science**, Krakow, Poland. (Jan. 1999, p. 70)

23-27 **International Conference on Topology and its Applications**, Kanagawa University, Yokohama, Japan. (Aug. 1998, p. 899)

* 23-29 **International Conference on Non-linear Partial Differential Equations**, Lviv,

Ukraine.

Organizers: Institute of Applied Mathematics and Mechanics of National Academy of Sciences of Ukraine together with Lviv State University. The idea of this conference was supported by National Academy of Sciences of Ukraine, Ukrainian Mathematical Society, International Federation of Nonlinear Analysts together with Polish Academy of Sciences.

Aim: The conference is dedicated to the outstanding mathematician J. P. Schauder.

Topics: Functional analysis in the theory of PDE, qualitative theory of nonlinear PDE, topological methods in the theory of PDE, free boundary problems, methods of PDE in applied and industrial mathematics.

Scientific Committee: H. Amann, E. Di Benedetto, B. Bojarski, S. D. Eidelman, A. Friedman, W. Jager, V. Lakhsmikantham, O. A. Ladyzhenskaya, V. A. Marchenko, O. A. Oleinik, S. I. Pohozaev, I. V. Skrypnik, N. N. Uraltseva, M. I. Vishik.

Organizing Committee: B. V. Bazaliy, A. Granas, A. Kartsatos, V. M. Kyrlych, G. S. Kit, E. Ya. Khruslov, A. A. Kovalevsky, S. P. Lavrenyuk, V. A. Marchenko, Ya. G. Pritula, A. M. Samoilenko, M. M. Sheremeta, A. E. Shishkov, I. V. Skrypnik (head of the Committee), C. P. Tsokos, A. F. Tedeev (scientific secretary), I. O. Vakarchuk, M. M. Zarichnyi.

Information: A. F. Tedeev, Institute of Applied Mathematics and Mechanics NAS Ukraine, R. Luxemburg Str. 74, 340114 Donetsk, Ukraine; e-mail: tedeev@iamm.ac.donetsk.ua.

23-September 4 **Generalized Dirac Operators and their Geometric Scattering Theory**, Banach Center, Warsaw, Poland. (Jan. 1999, p. 70)

25-28 **XI International Workshop on Numerical Methods in Viscoelastic Flows**, Vaals, The Netherlands. (Feb. 1999, p. 278)

30-September 1 **Sixth International Symposium on Generalized Convexity and Monotonicity**, University of the Aegean, Karlovassi, Samos Island, Greece. (Jan. 1999, p. 70)

September 1999

1-3 **First International Conference on the Integration of Dynamics, Monitoring and Control (DYMAC 99)**, Manchester, United Kingdom. (Sept. 1998, p. 1053)

5-11 **XX International Seminar on Stability Problems for Stochastic Models**, Maria Curie-Skłodowska University, Lublin-Naleczow, Poland. (Jan. 1999, p. 70)

* 6-24 **School on Modern Statistical Methods in Medical Research (in conjunction with ICMS, Edinburgh, Scotland, UK)**, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy.

Directors: E. J. T. Goetghebeur (University of Ghent, Belgium), J. L. Hutton (University of Newcastle-upon-Tyne, United Kingdom),

P. J. Solomon (University of Adelaide, Australia).

Deadline: Deadline for requesting participation: February 28, 1999.

Information: Abdus Salam International Centre for Theoretical Physics, Strada Costiera, 11-34014 Trieste, Italy; tel: +39-40-2240111; fax: +39-40-224163; e-mail: sci_info@ictp.trieste.it; http://www.ictp.trieste.it/.

*6–December 17 **Mathematical Developments in Solid Mechanics and Materials Science**, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom.

Organizers: K. Bhattacharya (Caltech), P. Suquet (Marseille), J. R. Willis (Cambridge).

Objective: There is great current interest in how the microscopic structure of a solid material influences its macroscopic response to stress. Conversely, the application of stress can influence microstructure. Microscopic damage may occur, leading ultimately to the formation of large cracks and structural failure. Phase transformations occur in some materials, creating structures at various length scales which evolve with stress. The challenge, both for mathematics and physical modelling, is to comprehend relationships between models at different length scales. This has led already to a well-developed theory of “homogenization” when the scales are widely separated, and has both exploited and stimulated advances in the calculus of variations. When the scales are separated but still comparable, there is a need for a micromechanical rationale for including scale effects in macroscopic models. The phenomena may be unstable, at least at the microscopic level, making demands both for modelling and for the analysis of partial differential equations. In particular, the (possibly hierarchical) developments of large-scale patterns is an open problem.

Focus: The main focus of the program will be on microstructure formation and evolution, as related to phase transformations, damage development and fracture. Each subject has its own group of specialists (in various mixes, mathematicians, physicists, engineers, materials scientists). There are already overlaps, both between subjects and disciplines, and it is intended that the program will exploit and extend these, to common advantage.

Information: Contact the Director, Isaac Newton Institute for Mathematical Sciences, 20 Clarkson Road, Cambridge CB3 0EH, UK; tel: 01223-335999; e-mail: info@newton.cam.ac.uk. Information can also be found on the World Wide Web at the URL <http://www.newton.cam.ac.uk/>.

*9–11 **IX Congress for the learning and teaching of Mathematics (JAEM)**, Lugo (Galicia), Spain.

Activities: The activities of Jaem include: Plenary conferences; communications about ten different topics; workshops; competi-

tions of photography and educational software, mathematics exhibitions, and trips and excursions to different places in Galicia.

Topics: Technologies in the teaching of mathematics (graphic calculators and computers); the teaching of statistics: a challenge pending; workshops and other options in mathematics; mathematics in real life and their connection with other subjects in school; from arithmetics thinking to algebraic thinking; basis of the learning of mathematics in primary teaching; the teaching of mathematics at the university; teacher training in mathematics; having fun with maths; mathematics in the secondary school.

Information: More information about the conference can be found on the Web page: http://www.cesga.es/cefocop_lugo/jaem/ or by sending an e-mail message to: cflugo@teleline.es.

14–16 **ElectrIMACS—Conference on Electrical Machines, Converters and Systems**, Lisbon, Portugal. (Apr. 1998, p. 535)

14–18 **International Conference on Analytic Methods of Analysis and Differential Equations (AMADE)**, Minsk, Belarus. (Jan. 1999, p. 70)

15–19 **GD'99 - Seventh International Symposium on Graph Drawing**, Stirin Castle, Prague, Czech Republic. (Jan. 1999, p. 71)

16–22 **The Fourth International Workshop On Differential Geometry and Its Applications**, Brasov, Romania. (Jan. 1999, p. 71)

20–24 **The 10th Biennial Computational Techniques and Applications Conference and Workshops (CTAC99)**, Australian National University, Canberra, Australia. (Feb. 1999, p. 278)

20–26 **International Symposium on Classical Analysis**, Kazimierz Dolny, Poland. (Jan. 1999, p. 71)

October 1999

October National Conference on Issues Related to Doctoral Programs in Mathematics Education, University of Missouri, Columbia, Missouri. (Jan. 1999, p. 71)

2–3 **AMS Eastern Sectional Meeting**, Providence College, Rhode Island. (Sept. 1997, p. 1031)

Information: W. Drady, e-mail: wsd@ams.org.

4–8 **Workshop on the Complexity of Multivariate Problems**, Hong Kong Baptist University, Hong Kong, China. (Jan. 1999, p. 71)

*6–9 **New Trends in the Calculus of Variations**, Centro de Matemática e Aplicações Fundamentais da Universidade de Lisboa, Lisbon, Portugal.

Focus: In the last decades there have been remarkable advancements in the study of

nonlinear partial differential equations, motivated not only by the twentieth century developments in pure and applied mathematics, but also by the industrial modelling and scientific progress. New theories and techniques have been developed to address the search for classical and generalized solutions for equations or systems of partial differential equations, and their qualitative properties such as regularity or asymptotic behavior. Most of these questions are still poorly understood and new emerging issues in physical sciences, mathematical finance, and other applied disciplines proved a test for known theories and an inspirational source for the introduction of new ones.

Scientific Organizers: M. L. Mascarenhas (Univ. Lisboa) and J. Palhoto de Matos (Inst. Sup. Técnico).

Support: A certain number of grants for young mathematicians, as well as for other scientists, will be available for participation at the meetings and for short or medium stays in Lisbon to stimulate joint collaboration and research.

Information: M. Morales, NPDEA-99 secretariat, CMAF/Univ. de Lisboa, Av. Prof. Gama Pinto 2, 1699 Lisboa Codex, Portugal; e-mail: npde99@lmc.fc.ul.pt; <http://npde99.lmc.fc.ul.pt>; tel: 351-1-790-48-62; fax: 351-1-795-42-88.

8–10 **AMS Central Sectional Meeting**, University of Texas, Austin. (Sept. 1997, p. 1031)

Information: W. Drady, e-mail: wsd@ams.org.

15–17 **AMS Southeastern Section Meeting**, University of North Carolina, Charlotte, North Carolina. (Nov. 1998, p. 1378)

*23–24 **Midwest Partial Differential Equations Seminar, Fall 1999**, University of Illinois, Urbana-Champaign, Illinois.

Theme: A semi-annual conference on recent developments in partial differential equations.

Confirmed Speakers: P. Constantin (Univ. of Chicago), C. Doering (Univ. of Michigan, Ann Arbor), L. C. Evans (Univ. of California, Berkeley), N. Goldenfeld (Univ. of Illinois, Urbana).

Support: Some financial support is available to graduate students, who are encouraged to attend.

Registration: Registration is not required, and there is no registration fee.

Organizers: J. Bronski, R. Jerrard, R. Laugesen.

Information: For complete, up-to-date conference information, please see <http://www.math.uiuc.edu/~laugesen/mwpde.html> or contact R. Laugesen (laugesen@math.uiuc.edu, Dept. of Mathematics, Univ. of Illinois, IL 61801).

January 2000

17–21 **International Conference on Mathematical Analysis and its Applications, 2000 (ICMAA2000)**, National Sun Yat-sen

University, Kaohsiung 804, Taiwan, R.O.C. (Jan. 1999, p. 71)

19–22 **Joint Mathematics Meeting**, Sheraton Washington Hotel & Omni Shoreham Hotel, Washington, District of Columbia. (Sept. 1997, p. 1031)

21–22 **1999-2000 ASL Winter Meeting**, Washington, DC. (Jan. 1999, p. 72)

February 2000

20–22 **International Conference on Stochastic Optimization: Algorithms and Applications**, University of Florida, Center for Applied Optimization, Gainesville, Florida. (Jan. 1999, p. 72)

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.

April 2000

* 14–16 **AMS Southeastern Section Meeting**, University of Southwestern Louisiana, Lafayette, Louisiana.

Information: See the AMS Meetings & Conferences pages on e-MATH, or contact Donna Salter, dls@ams.org.

June 2000

* 12–15 **First AMS-Scandinavian International Mathematics Meeting**, University of Odense, Odense, Denmark.

Sponsors: Sponsored by the AMS, Dansk Matematisk Forening, Suomen matemaattinen yhdistys, Icelandic Mathematical Society, and Svenska matematikersamfundet.

Information: Watch the AMS Meetings & Conferences pages on e-MATH, or contact dls@ams.org for details.

August 2000

* 7–12 **Mathematical Challenges of the 21st Century**, UCLA, Los Angeles, California.

Information: Watch the AMS Meetings and Conferences pages on e-MATH for details, or contact dls@ams.org.

September 2000

* 18–22 **International Data Analysis Conference**, Innsbruck, Austria.

Goal: The congress will take place at Innsbruck in the middle of the Alps. In the first year of the second millenium it is an opportunity to summarize the most up-to-date methods in data analysis and to look forward into the next century. All aspects of data analysis will be considered, ranging from applied aspects to fundamental questions on the description and analysis of real data. Further details are given in the second information. There will be a social program with possibilities for excursions.

Invited Speakers: R. E. Barlow (Berkeley), S. Bodjanova (Austin), R. Dutter (Wien), L. Fahrmeir (München), K. Felsenstein (Wein),

M. S. Nikulin (Bordeaux), H.-J. Zimmermann (Aachen).

Topics: All aspects of data sciences are considered, ranging from the description of real data to different methods of data analysis. These include: analysis of fuzzy data; applied data analysis; Bayesian data analysis; computerized data analysis; data and networks; data description; data encryption; data mining; data security; descriptive data analysis; exploratory data analysis; fuzzy data analysis; graphical data analysis; statistical data analysis.

Call for Papers: Authors are invited to submit a paper in the field of data analysis. Practical applications of data analysis techniques to real data are welcome. Proposals for papers by a one-page abstract.

Fee: Participants: ATS 3,700; accompanying persons: ATS 1,700; students: ATS 1,100.

Information: R. Viertl, Institut f. Statistik, Technische Universität Wien, Wiedner Hauptstr. 8/107, A-1040 Wien, Austria; e-mail: viertl@tuwien.ac.at.