

Mathematics Calendar

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

January 1999

*January–December **Academic Year Devoted To Potential Theory and Nonlinear Partial Differential Equations**, Mittag-Leffler Institute, Djursholm, Sweden.

Organizing Committee: The organizing committee consists of M. Essén (Univ. of Uppsala), C. Bandle (Univ. of Basel), B. Gustafsson (Royal Institute of Technology, Stockholm), V. Maz'ya (Univ. of Linköping), H. Shahgholian (Royal Institute of Technology, Stockholm).

Application deadline: For postdoctoral fellowships: March 31, 1999. Send applications to: M.-L. Koskull, the Mittag-Leffler Institute, Auravägen 17, S-182 62 Djursholm, Sweden.

Information: See our homepage: <http://www.ml.kva.se/>.

*15–16 **ASL Winter Meeting (in conjunction with AMS annual meeting)**, San Antonio, Texas.

Program Notes: In the AMS meeting there will be an ASL/AMS Special Session on Model Theory and its Applications, organized by A. Pillay. Other AMS special sessions include: Commutative Algebra and Algebraic Geometry, Computational Algebraic Geometry for Curves and Surfaces, Singularities in Algebraic and Analytic Geometry, Mathematics and Education Reform, History of

Mathematics, and Mathematics Education and Mistaken Philosophies of Mathematics.

Invited Speakers: M. Benedikt, G. LaForte, C. Laskowski, W. Mitchell, A. Pillay, R. Soare, S. Solecki, and R. Solomon.

Submission: Abstracts of contributed papers from ASL members should be sent by the deadline of October 9, 1998, to the ASL office.

Local Arrangements: Registration and hotel arrangements through the AMS.

Information: Association for Symbolic Logic, 1409 West Green Street, Urbana, Illinois 61801; tel: 217-244-7902; fax: 217-333-9576; e-mail: asl@math.uiuc.edu; <http://www.math.uiuc.edu/~asl/>.

*29–31 **Symposium on Dynamical Systems**, Princeton University, Princeton, New Jersey.

Sponsors: The symposium is jointly sponsored by Princeton University and the Center for Communications Research, a division of the Institute for Defense Analyses.

Speakers: D. Dolgopyat (Univ. of California, Berkeley), G. Forni (Princeton Univ.), V. Kaloshin (Princeton Univ.), Y. Katznelson (Stanford Univ.), D. Kosygin (NY Univ., Courant Inst.), I. Krichever (Columbia Univ.), M. Lyubich (SUNY Stony Brook), G. Margulis (Yale Univ.), J. Milnor (SUNY Stony Brook), D. Ornstein (Stanford Univ.), M. Shub (IBM,

T. J. Watson Research Labs), J. Smillie (Cornell Univ.), W. Veech (Rice Univ.), and J. Xia (Northwestern Univ.).

Information: For more information and/or to let us know you are coming you may contact I. Sinai or J. Mather at dona@princeton.edu or L. Neuwirth at lpn@ccr-p.ida.org, 609-279-6231.

February 1999

*1–28 **Modeling of Biological Systems—An Interdisciplinary Course**, Marine Biological Laboratory, Woods Hole, Massachusetts.

Aim: This intensive laboratory/lecture course is designed to train biologists and non-biologists to apply and adapt successful modeling approaches in biology to their own research. MOBS is for students in the biological, chemical and physical sciences, mathematics and engineering. The course is organized into thematic cassettes that focus on particular broad areas of biology. **Course Faculty:** R. B. Silver, course director, J. Hummel (Argonne Nat. Lab.), P. Kollman (UCSF), S. Leibholz (Chesapeake TechLabs), J. Pearson (Los Alamos Nat. Lab.), G. Petsko (Brandeis Univ.), S. Ponce-Dawson (Univ. of Buenos Aires), M. Wastney (Georgetown Univ.), and others to be announced.

Information: Application deadline: December 10, 1998. Course fee: \$3,750 (room &

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.)

board is provided). Scholarship support is available. Contact: Admissions coordinator, Marine Biological Laboratory, 7 MBL Street, Woods Hole, MA 02543-1015; tel: 508-289-7216; e-mail: admissions@mb1.edu.

*** 8-10 Large Scale Discrete Optimization in Logistics**, DIMACS Center, Rutgers University, Piscataway, New Jersey.

Organizers: G. Nemhauser (Georgia Tech.) and M. Savelsbergh (Georgia Tech.).

Aim: This workshop brings together leading researchers in the fields of discrete optimization and logistics and presents state-of-the-art research in the area of large-scale discrete optimization in logistics. Application domains that will be covered include network design, production planning, vehicle routing, and crew scheduling. Both exact and heuristic solution approaches will be presented. The workshop is intended for anybody interested in discrete optimization or logistics, from industrial practitioners to academic researchers. Ph.D. students and post-docs are also encouraged to attend. There will be five or six one hour invited lectures on Monday and Tuesday and four on Wednesday, with ample time for informal discussion and interaction among the participants. In addition, evening discussion sessions will be organized around themes of general interest to the participants.

Invited Speakers: M. Ball (Univ. of Maryland), D. Bienstock (Columbia Univ.), B. Cook (Rice Univ.), D. Johnson (AT&T Labs-Research), E. Johnson (Georgia Tech.), G. Laport (Univ. of Montreal), T. Magnanti (MIT), W. Powell (Princeton Univ.), M. Resende (AT&T Labs-Research), D. Shmoys (Cornell Univ.), D. Simchi-Levi (Northwestern Univ.), L. Wolsey (Catholic Univ. of Louvain-la-Neuve).

Contact: G. Nemhauser (Georgia Tech.), e-mail: george.nemhauser@isye.gatech.edu.

Local Arrangements: P. Pravato (DIMACS Center), e-mail: pravato@dimacs.rutgers.edu, tel: 732-445-5929.

Information: WWW information: <http://dimacs.rutgers.edu/Workshops/index.html>.

*** 12-13 Fifteenth Conference on Applied Mathematics (CAM)**, University of Central Oklahoma, Edmond, Oklahoma. (Nov. 1998, p. 1377)

Program: An interdisciplinary conference on mathematics with applications, this year's CAM will feature J. Gallian of the Univ. of Minnesota at Duluth, who will speak on "The Mathematics of Identification Numbers." Also featured will be W. Briggs of the Univ. of Colorado, who will speak on "Differential and Difference Equations in Population Genetics." A special program on "Teaching Quantitative Reasoning to Liberal Arts Students" will also be provided by Dr. Briggs, based on ideas he incorporated into his recent textbook.

Conference Tracks: Applied mathematics, differential equations, and applied compu-

ter science. There will also be a session of student presentations.

Call for Papers: Abstracts should be post-marked by December 31, 1998, and mailed to the address below. As in past years, CAM will include a session for graduate and undergraduate student papers on mathematics and its applications and will provide Outstanding Student Presentation Awards for the best papers. Presenters should specify whether their paper is intended for the Session on Computer Science, the Session on Differential Equations, the Session on Applied Mathematics, or the Student Session.

Deadlines: Advance registration: January 10, 1999; abstracts: January 10, 1999; manuscripts: March 12, 1999.

Information: Conference on Applied Mathematics, College of Mathematics and Science, Univ. of Central Oklahoma, 100 N. University, Edmond, OK 73034; tel: 405-974-5381; fax: 405-974-3824, e-mail: cam@aix1.ucok.edu. More information about the conference (including local arrangements) can be found at <http://dogbert.comsc.ucok.edu/cam/>.

March 1999

*** 1-4 M/SET 99, International Conference on Mathematics/Science Education & Technology**, San Antonio, Texas.

Focus: M/SET 99 is a unique conference focusing upon information technology in mathematics, science, and computer science, learning and teaching across all educational levels and settings, including elementary, secondary, college, and teacher education. This annual conference serves as a forum to discuss and exchange information on the current research, theory, issues, classroom applications, development and trends related to using information technology in mathematics, science, and computer science education.

Hosts: Hosted by the Univ. of Texas-San Antonio and the Univ. of Houston, M/SET 99 will be held concurrently with SITE 99-Society for Technology and Teacher Education International Conference. This offers participants an affordable opportunity to attend two conferences when in San Antonio. Both conferences are organized by the Association for the Advancement of Computing in Education (AACE). M/SET is sponsored by the Journal of Computers in Mathematics and Science Teaching (JCMST).

Information: For more information, contact D. Thomas, Dept. of Mathematical Sciences, Montana State Univ., Bozeman, MT 59717; e-mail: dave@math.montana.edu; or visit the Conference Web page: <http://www.aace.org/conf/mset/mset99call.htm>.

*** 20-23 ASL Annual Meeting**, San Diego, California.

Invited Speakers: S. Friedman, J. Knight, S. Lempp, M. Magidor (retiring presidential address), T. Pitassi, H. Schoutens, S. Thomas, V. Vianu, and J. Zapletal.

Program Notes: The program will represent a broad perspective of modern logic, and will include the Tenth Annual Gödel Lecture. R. Fagin will give two tutorial lectures on finite model theory. There will be five special sessions (organizers in parentheses): computability theory (C. G. Jockusch Jr.), finite model theory and stability theory (J. Baldwin), philosophical logic (V. McGee and G. Sher), proof theory and complexity (S. Buss), and set theory (G. Hjorth).

Submission: Abstracts of contributed papers from ASL members should be sent by the deadline of January 15, 1999, to the Program Chair: S. Buss, Department of Mathematics, Univ. of California at San Diego, La Jolla, CA 92093-0112; e-mail: sbuss@ucsd.edu.

Program Committee: S. Buss (chair), B. Hart, C. G. Jockusch Jr., V. McGee, and W. H. Woodin.

Travel Grants: Travel grants (partly supported by an NSF grant) are available to graduate students in logic. Applications should be sent by January 15, 1999, to S. Buss at the address above.

Information: Association for Symbolic Logic, 1409 West Green Street, Urbana, IL 61801; tel: 217-244-7902; fax: 217-333-9576; e-mail: asl@math.uiuc.edu; <http://www.math.uiuc.edu/~asl/>. Meeting Web site: <http://math.ucsd.edu/~asl99/>. A meeting poster may be printed out from this site.

April 1999

*** 15-20 Second International Conference on Multivariate Scattered Data Fitting**, Puerto Vallarta, Jalisco, Mexico.

Topics: The meeting will focus on various aspects of multivariate scattered data fitting. This includes interpolation and approximation methods using splines, radial basis functions, wavelets, etc., as well as various applications in geology, geophysics, hydrology, image processing, meteorology, terrain modelling, and visualization.

Organizing Committee: P. Gonzalez-Casanova (UNAM, Cuernavaca), A. Le Méhauté (Université de Nantes), L. L. Schumaker (Vanderbilt Univ.), L. Traversoni (Univ. Autonoma Met. Iztapalapa).

Participation: Sessions will be organized for contributed talks. Abstracts should be submitted via the Web page at <http://atpv.matcuer.unam.mx/> or by e-mail to s@mars.cas.vanderbilt.edu. Deadline is February 1, 1999.

Information: See the Web page or contact L. Schumaker, Dept. of Mathematics, Vanderbilt University, Nashville, TN 37240.

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

Goal: The goal of the workshop is to generate a lively discussion between researchers in finite-model theory and descriptive complexity and investigators in various areas

of cognitive science. Obvious areas of potential interaction include the study of constraint satisfaction problems, the analysis and application of modal and temporal logics, and the construction of adequate languages for knowledge representation in areas such as computational learning theory and robotics. It is our hope that the workshop will also bring to light further areas of potential interaction between finite-model theory and cognitive science.

Organizers: M. Vardi (Rice Univ.), e-mail: vardi@cs.rice.edu, S. Weinstein (Univ. of Pennsylvania), e-mail: weinstein@cis.upenn.edu.

Sponsors: DIMACS Center, Institute of Research in Cognitive Science (IRCS).

Information: Contact M. Vardi (Rice Univ.), e-mail: vardi@cs.rice.edu; WWW: <http://dimacs.rutgers.edu/Workshops/index.html>.

* 22-24 **Inverse Problems in Stratified Media**, University of Aarhus, Aarhus, Denmark.

Sponsor: MaPhySto - Centre for Mathematical Physics and Stochastics.

Organizers: J.-C. Guillot (Paris-Nord), B. H. Jacobsen (Aarhus), and A. Jensen (Aalborg).

Information: For further information see the Web page located at <http://www.maphysto.dk/events/InvProbW99/>.

May 1999

* 19-22 **Mathematics from Physics: Recent Trends and New Developments**, University of Illinois, Urbana, Illinois.

Aim: The aim is to bring together mathematicians and physicists with overlapping interests, in order to facilitate interdisciplinary collaboration. Topics of discussion will include string theory, condensed matter systems, gauge theory, differential and algebraic geometry. Principal speakers will each deliver a series of three lectures.

Speakers: D. S. Freed (Univ. of Texas at Austin), D. H. Phong (Columbia Univ.), D. Thouless (Univ. of Washington), and C. Vafa (Harvard Univ.).

Organizers: M. Bergvelt, S. Bradlow, S.-J. Chang, J. D'Angelo, E. Fradkin, R. Leigh, and M. Stone.

Information: Please see the Web site <http://web.physics.uiuc.edu/mathphys99/> for more information.

* 24-26 **International Symposium on Discontinuous Galerkin Methods: Theory, Computation and Applications**, Salve Regina College, Newport, Rhode Island.

Theme: Discontinuous Galerkin methods (DGM) have been developed only recently but have found use quickly in such diverse applications as aeroacoustics, semiconductor device simulation, turbomachinery, turbulent flows, materials processing, MHD and plasma simulations, and image processing. While there has been a lot of interest in DGM, only scattered information is available and there has been no prior effort in organizing a conference and in pub-

lishing the existing volume of knowledge on this subject. We invite participation of mathematicians, physicists, and engineers working in this area for possible contributions, and plan to publish proceedings with selective contribution to serve as a reference on the subject.

Organizers: R. Cockburn (Univ. of Minnesota), G. Karniadakis (Brown Univ.), C.-W. Shu (Brown Univ.).

Scientific Committee: F. Brezzi (Univ. of Pavia, Italy), J. Flaherty (RPI, USA), C. Johnson (Univ. of Chalmers, Sweden), K. Morton (Oxford Univ., UK), T. J. Oden (Univ. of Texas at Austin), M. Wheeler (Univ. of Texas at Austin).

Contact: M. Brewster (symposium secretary), tel: 401-863-1414; fax: 401-863-2722; e-mail: dgm@cfm.brown.edu; URL: <http://www.cfm.brown.edu/dgm/>.

* 29-June 1 **CMS Summer 1999 Meeting**, Memorial University of Newfoundland, St. John's, Newfoundland.

Program: This meeting will feature plenary speakers from a broad spectrum of mathematics by top mathematicians. It will also feature sessions in various areas of mathematics.

Plenary Speakers: E. Barbeau (Toronto), R. K. Brylinski (Pennsylvania State), T. Korner (Cambridge) and M. van den Bergh (Limburg/Belgium).

Prize Lectures: The Jeffery-Williams Lecture will be given by J. Friedlander (Univ. of Toronto). The Krieger-Nelson Prize will be given by N. T. Jaegermann (Univ. of Alberta).

Sessions: Session titles and speakers are: Combinatorics and its Applications (N. Shalaby and D. Stinson, organizers): F. Bennett (Halifax), C. Colbourn (Maine), K. Heinrich (SFU), A. Rosa (McMaster), D. Stinson (Waterloo), L. Vinet (Montreal); Education: What Mathematical Competitions Do for Mathematics (B. Shawyer and E. Williams, organizers): E. Barbeau (Toronto), R. Dunkley (Waterloo), T. Gardiner (Birmingham), R. Janes (Director of NCTM), and S. Sullivan (MUN student).

June 1999

* 1-3 **International Conference on Differential Equations and Related Topics**, Pusan National University, Pusan, Korea.

Purpose: The aim of the conference is to present recent advances in the fields of nonlinear ordinary, partial or functional differential equations, theory of nonlinear operators and broad applications of related areas.

Speakers: Invited speakers include H. Brézis (Univ. Paris VI), J. Goldstein (Univ. of Memphis), A. G. Kartsatos (Univ. of South Florida), V. Lakshmikantham (Florida Inst. of Tech.), J. Mawhin (Univ. de Louvain), H. Tanabe (Otemon Gakuin Univ.), J. Ward (Univ. of Alabama, Birmingham), B. G. Zhang (Ocean Univ. of Quindao).

Call for Papers: Contributed talks of 30 minutes in length in all areas of differential

equations are invited. If you would like to contribute a talk, you may submit your title and abstract on the registration form. Please request the registration form from the organizing committee.

Organizing Committee: K. S. Ha, Y.-H. Lee, J. Y. Park.

Information: For further information, please contact one of the organizing committee: K. S. Ha, e-mail: ksha@hyowon.pusan.ac.kr; Y. H. Lee, e-mail: yhlee@hyowon.pusan.ac.kr; J. Y. Park, e-mail: jypark@hyowon.pusan.ac.kr; Department of Mathematics, Pusan National Univ., Pusan 609-735, Korea; fax: +82-51-581-1458; updates will be posted on the conference Web site: <http://web.pusan.ac.kr/~ksha/>.

* 3-5 **Applications of Heavy Tailed Distributions in Economics, Engineering and Statistics**, American University, Washington, DC.

Objective: Heavy tailed distributions are being used in a large variety of problems in economics, finance, engineering, statistics, and other areas. It is evident that many important problems are poorly described by standard Gaussian models. This conference will draw together experts from a range of disciplines to describe the methods used to analyze such processes.

Invited Speakers: R. Adler, G. Arce, R. Davis, F. Diebold, R. Feldman, M. Grigoriu, S. Kassam, A. Lo, B. Mandelbrot, J. H. McCulloch, S. McLaughlin, C. Nikias, A. Petropulu, N. Ravishanker, S. Resnick, G. Samorodnitsky, M. Taqqu, W. Willinger, E. Wegman, A. Weron, T. Zhou.

Organizers: J. P. Nolan (American Univ. jpnolan@american.edu), A. Swami (Army Research Labs, aswami@arl.mil or a.swami@ieee.org).

Information: For additional information please visit our Web page at: <http://www.cas.american.edu/~jpnolan/HeavyTails.html>.

* 4-9 **Geometry, Analysis & Mathematical Physics: Analysis & Geometry**, Obernai (near Strasbourg), France.

Speakers: D. Auroux (École Polytechnique), P. Biran (Stanford), Y. Chekanov (Moscow), R. Dijkgraaf (Amsterdam), R. Fintushel (Michigan), E. Getzler (Northwestern), E. Giroux (Lyon), V. Giventhal (Berkeley), L. Jeffrey (Toronto), Y. Karshon (Jerusalem), M. Kontsevitch (Bures/Yvette), S. Kuksin (Heriot-Watt), G. Liu (UCLA), E. Meinrenken (Toronto), T. Mrowka (MIT, Cambridge), W. Nahm (Bonn), L. Polterovich (Tel-Aviv), Y. Ruan (Wisconsin), M. Schwarz (Stanford), P. Seidel (MPIM-Bonn), J.-C. Sikorav (Toulouse), K. Uhlenbeck (Austin), S. T. Yau (Harvard).

Scope: The purpose of the meeting will be to review recent developments on: symplectic geometry; contact geometry and Floer homology; Gromov-Witten invariants and mirror symmetry; Donaldson and Seiberg-Witten invariants; symplectic analysis in infinite dimensions; moduli spaces. 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. Poster sessions 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: February 15, 1999.

Information: For more information and application forms, contact 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/>.

* 7-11 **International Society of The Arts, Mathematics, and Architecture (ISAMA99)**, San Sebastian, Spain.

Call for Papers: Papers are invited that relate the arts and architecture with mathematics.

Information: For details, contact N. Friedman, e-mail: artmath@csc.albany.edu, tel: 518-442-4621, fax: 518-442-4731, or see <http://www.sc.edu.es/ISAMA99/>.

* 20-24 **The Sixth Conference of The Canadian Number Theory Association (CNTA '99)**, University of Manitoba, Winnipeg, Canada.

Organized By: Institute of Industrial Mathematical Sciences (IIMS).

Topics: This conference will include topics in all aspects of modern number theoretic investigation, in particular: combinatorial/computational number theory, analytic number theory, diophantine problems and arithmetic geometry. All of these areas have seen rapid development in recent years, both in Canada and internationally.

Information: Contact P. N. Shivakumar, inmath@umanitoba.ca; tel: 204-474-6724; fax: 204-474-7602; IIMS Web page: <http://www.iims.umanitoba.ca/>.

* 21-July 2 **Computational Algebra With Applications**, University of Wyoming, Laramie, Wyoming.

Aim: Computational algebra and algebraic geometry is a very active and rapidly growing field, with many applications to other areas of mathematics, as well as computer science and engineering. Easily accessible without extensive specialized mathematical expertise, the theory very quickly leads to deep research problems as well as realistic applications to other subjects. This conference will treat the theory and the applications of computational algebra and algebraic geometry. After working through the theoretical foundations, most importantly the theory of Groebner bases for collections of polynomials, we will develop the necessary specialized algebra and geometry for the applications on which the second part of the program will focus. We

plan on presenting applications to other areas of mathematics as well as to realistic problems from engineering. Hands-on computations with several common computer algebra systems will play an important role in the workshop. The intended audience is graduate students and faculty in mathematics, engineering, and computer science.

Speakers: J. Brennan (North Dakota State Univ.) and R. Laubenbacher (New Mexico State Univ.).

Sponsors: Rocky Mountain Mathematics Consortium and the University of Wyoming.

Deadline: For application/abstracts of talks: April 1, 1999.

Information: A. D. Porter, Mathematics Department, Univ. of Wyoming, Laramie, WY 82081; e-mail: adporter@UWYO.EDU.

* 23-25 **Bar-Ilan Symposium on The Foundations of Artificial Intelligence (BISFAI-99)**, Ramat Gan, Israel.

Theme: Bridging theory and practice: theory-based practical implementations and commercial applications.

Scope: The symposium is international in scope, with invited lectures by leading researchers and contributed papers on foundations of AI.

Invited Speakers: The invited speakers for BISFAI-99 include S. Rosenschein (Stanford Univ.) and L. Joskowicz (Hebrew Univ.).

Call for Papers: We solicit substantial research papers in all areas of Artificial Intelligence, including but not limited to, automated reasoning, data mining, information retrieval, intelligent agents, knowledge-based systems, knowledge representation, machine learning, mathematical and philosophical foundations, natural language processing, planning, probabilistic reasoning, robotics, search. We especially encourage papers on the theme of this year's symposium. Authors should submit papers (preferably postscript files via e-mail) by March 2, 1999, together with a text version of the title and abstract, to either of the program chairs, L. Morgenstern (leora@watson.ibm.com) or S. E. Shimony (shimony@cs.bgu.ac.il). Papers should be at most twelve pages in length, excluding references. Questions on content, format, or appropriateness should be addressed to the program chairs. Authors will be notified of acceptance by April 12, 1999. A final version of the accepted papers will be available at the BISFAI-99 website. Selected refereed full-length papers will be published in a special issue of the Annals of Mathematics and Artificial Intelligence as a permanent record of the symposium. These should be submitted shortly after the conclusion of the symposium.

Call for Demos: We solicit proposals for demonstrations of innovative applications of artificial intelligence. Details can be found at <http://www.cs.biu.ac.il:8080/bisfai/cfd.html>, or at <http://www-formal.stanford.edu/leora/bisfai/cfd.html>.

Program Committee: L. C. Aiello (Univ.

Rome—"La Sapienza", Italy), R. Ben-Eliyahu (Ben-Gurion Univ., Israel), Y. Choueka (Bar-Ilan Univ., Israel), E. Davis (New York Univ.), R. Dechter (UC Irvine), R. Feldman (Bar-Ilan Univ., Israel), N. Friedman (Hebrew Univ., Israel), H. Geffner (Simon Bolivar Univ., Venezuela), D. Geiger (Technion, Israel), S. Kraus (Bar-Ilan Univ., Israel), D. Lehmann (Hebrew Univ., Israel), S. Markovitch (Technion, Israel), J. McCarthy (Stanford Univ.), J. Minker (Univ. Maryland at College Park), J. Rosenschein (Hebrew Univ., Israel), E. Sandewall (Linkoping Univ., Sweden), E. Santos (Univ. of Connecticut), U. Schild (Bar-Ilan Univ., Israel), M. Tennenholtz (Technion, Israel), B. Webber (Univ. of Edinburgh, Great Britain).

* 27-July 1 **1999 Summer Conference on Brauer Groups**, University of Montana, Missoula, Montana.

Organizers: S. Liedahl (sliedahl@charlo.math.umt.edu) and N. Vonessen (vonessen@selway.umt.edu), Department of Mathematical Sciences, The Univ. of Montana, Missoula, MT 59812-1032.

Information: The meeting will be held at the Lubrecht Experimental Forest, about 30 miles from Missoula. Families are encouraged to attend. Detailed information, including a preregistration form, is available at <http://www.math.umt.edu/~vonessen/conference/1999brauer.html>. Tentative room/cabin assignments will be made beginning December 1998.

* 28-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.

Organizers: E. J. Bayro-Corrochano (Germany), G. Sobczyk (Mexico).

Program Committee: R. Ablamowicz (USA), W. Baylis (Canada), V. Chernov (Russia), J. Lasenby (UK), P. Lounesto (Finland), T. Havel (USA), R. Hecht-Nielsen (USA), D. Hestenes (USA), J. M. McCarthy (USA), A. Naeve (Sweden), G. Sommer (Germany).

Workshop Goals: To gather scientists interested in the application of Geometric/Clifford algebras to various areas of applied mathematics and engineering. The growing interest in and successful applications of geometric algebra deserve the attention and recognition of the larger Scientific Community. This workshop is meant to energize and encourage discussion of the pertinent issues in the successful application of geometric algebra to wider and wider fields of interest, including but not limited to: cybernetics, computer science, artificial intelligence, quantum computing, robotics, image processing, computer vision, neural networks, brain and neurosciences, electrical and electronic engineering, mechanical and control engineering, optimization, statistical geometry and geometric reasoning,

Jordan and SVD decomposition applied to multivectors.

Deadlines: December 15, 1998: submission of abstracts; March 15, 1999: submission of preliminary version; April 15, 1999: notification of acceptance; June 28–July 1, 1999: conference and workshop parallel special session; July 1, 1999: submission of camera ready copy.

Information: For more information please see <http://www.math.tntech.edu/rafa/mexico/parallel.html>.

July 1999

* 4–11 **Paul Erdős and His Mathematics**, Hungarian Academy of Sciences, Budapest, Hungary.

Program: Invited plenary speakers on the mathematics of Paul Erdős. In sections on the influence of his mathematics on today's research.

Topics: All basic fields that he contributed to: number theory, analysis, probability theory, combinatorial set theory and combinatorics.

Speakers: N. Alon, P. Borwein, P. D. T. A. Elliott, R. L. Graham, A. Hajnal, P. Komjáth, D. Lubinsky, C. Pomerance, I. Ruzsa, M. Simonovits and J. Spencer.

Organizers: L. Babai, B. Bollobas, A. Hajnal, G. O. H. Katona, M. Laczkovich, L. Lovasz, P. Revesz, A. Sali, A. Sarkozy, M. Simonovits, V. T. Sos, J. Szabados.

Information: URL: <http://www.math-inst.hu/~erdos99>; e-mail: erdos99@math-inst.hu.

* 9–17 **Computation in Group Theory and Geometry**, University of Warwick, Coventry, England.

Information: Please see the Web page <http://www.maths.warwick.ac.uk/~dbae/symposium99.html>.

* 11–August 15 **Seventh Annual Canada/USA Mathcamp**, University of Washington, Seattle, Washington.

Program: Mathcamp is an intensive 5-week-long summer program for gifted students which incorporates the fun elements of a camp and the following goals: inspire and motivate mathematically talented high school students by exposing them to the beauty and variety of mathematics; impart the knowledge and skill for the early pursuit of mathematics; provide a supportive environment for interaction among students who love mathematics. At Mathcamp you will learn exciting mathematical ideas not usually covered in high school; gain in mathematical understanding, skills, and confidence—whether in preparation for a possible career in math or science, as training for math competitions, or simply out of interest for the subject; get a unique chance to study with some of the finest mathematicians of today; meet and make friends with the mathematicians and applied mathematicians of tomorrow—fellow mathcamp students coming together, dis-

covering common interests and purposes, and learning from each other.

Sponsor: Canada/USA Mathcamp is conducted by the Mathematics Foundation of America (MFOA).

Information: Contact Mathematics Foundation of America, 3560 Pine Grove Ave., Port Huron, MI 48060; tel: 519-672-7990; fax: 519-434-6244; e-mail: info@mathcamp.org.

* 12–18 **Third International Conference on Symmetry in Nonlinear Mathematical Physics**, Kiev, Ukraine.

Organizing Committee: J. Beckers (Belgium), V. Boyko (Ukraine), G. Bluman (Canada), J.-M. Cervero (Spain), P. Clarkson (UK), H.-D. Doebner (Germany), G. Goldin (USA), B. K. Harrison (USA), N. Ibragimov (SAR), R. Jackiw (USA), M. Lakshmanan (India), A. Nikitin (co-chairman, Ukraine), P. Olver (USA), A. Samoilenko (co-chairman, Ukraine), M. Shkil, I. Skrypnik, I. Yehorchenko, R. Zhdanov.

Topics: Classical Lie analysis of equations of mathematical physics, reduction techniques and exact solutions of nonlinear partial differential equations, nonclassical, conditional and approximate symmetry, symmetry in nonlinear quantum mechanics, quantum fields, gravity, fluid mechanics, mathematical biology, mathematical economics, representation theory, q-algebras and quantum groups, symbolic computations in symmetry analysis, dynamical systems, solitons and integrability, supersymmetry and parasupersymmetry.

Information: Contact A. Nikitin, Institute of Mathematics, National Academy of Sciences of Ukraine, 3 Tereshchenkivska Street, Kyiv 4, Ukraine; e-mail: nonlin@apmat.freenet.kiev.ua, apmath@imath.kiev.ua; fax: +38-044-225-20-10; tel: +38-044-224-63-22 or 250-08-96.

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

Organizers: This conference is jointly organized by Tongji Univ. and City Univ. of Hong Kong.

Presentations: Presentations in all areas of applied partial differential equations are welcomed.

Invited Speakers: X. Q. Ding (Academia Sinica, Beijing), A. Friedman (Univ. of Minnesota), Y. Giga (Hokkaido Univ.), R. Kersner (Hungarian Academy of Sciences), F. Lin (New York Univ.), J. McLaughlin (Rensselaer Polytechnic Institute), J. Ockendon (Oxford Univ.), A. Visintin (Univ. of Trento), L. Xiao (Academia Sinica, Beijing), Z. Xin (New York Univ.).

Scientific Committee: C. Gu (Fudan Univ.), L. Jiang (Tongji Univ.), T.-T. Li (Fudan Univ.), T.-P. Liu (Stanford Univ.), Z. Shi (Shanghai Jiaotong Univ.), R. Wong (City Univ. of Hong Kong).

Organizing Committee: H.-h. Dai (City Univ. of Hong Kong), Z. Huang (Tongji

Univ.), Y. Y. Lu (City Univ. of Hong Kong), J. Shao (Tongji Univ.).

Registration: The registration fee is USD 200. This includes (a) daily breakfast, lunch, and dinner and banquets; (b) a local tour in Shanghai.

Information: Details of the conference are available on the Web page: <http://www.cityu.edu.hk/ma/conference/tongji/>. For further information, please contact H. Ziping at: Department of Applied Mathematics, Tongji Univ., 200092 Shanghai, P. R. China. E-mail: hzpsyhk@online.sh.cn; fax: +86-21-65150645.

* 16–18 **ESA'99 - Seventh Annual European Symposium on Algorithms**, Prague, Czech Republic.

Organizer: J. Nešetřil (chair, DIMATIA Charles Univ., Prague).

Scope: The symposium covers research in the use, design, and analysis of efficient algorithms and data structures as it is carried out in computer science, discrete applied mathematics and mathematical programming. Papers are solicited describing original results in all areas of algorithmic research, including but not limited to: approximation algorithms, combinatorial optimization, computational biology, computational geometry, databases and information retrieval, graph and network algorithms, machine learning, number theory and computer algebra, on-line algorithms, pattern matching and data compression, symbolic computation. The algorithms may be sequential, distributed or parallel, and they should be analyzed either mathematically or by rigorous computational experiments. Submissions that report on experimental and applied research are especially encouraged.

Deadlines: Submission of papers: January 17, 1999; notification of acceptance: March 28, 1999; final versions due: April 25, 1999.

Information: Contact: nesetřil@kam.ms.mff.cuni.cz; Web page: <http://www.ms.mff.cuni.cz/esa99/>.

* 16–18 **Olga Taussky Todd Celebration of Careers in Mathematics for Women**, Mathematical Sciences Research Institute, Berkeley, California.

Sponsor: Association for Women in Mathematics.

Aim: Lectures will showcase the research of outstanding women in mathematics; talks and discussions by mathematicians with careers in government, business, industry and academia will focus on contemporary issues of concern. The primary goals of the celebration are to assist, encourage, and inspire the graduate student and recent Ph.D. participants, to provide a forum for networking between mathematicians at different career stages, and to promote the achievements of women in mathematics. Senior investigators will provide role models and offer mentoring. The beginning mathematicians who participate will find in the legacy of Olga Taussky a realistic

model and worthy goals for their lives. The scientific community is invited to talks.

Travel Support: Limited travel support is available, primarily for graduate students and recent Ph.D.s. Those awarded travel support will present their work in a poster or talk. Funded graduate students must have begun a dissertation problem; recent Ph.D.s should be within 7 years of the degree and, if academically employed, not tenured. Applicants should include 5 copies each of a cover letter, an outline of their research (1-2 pages), a curriculum vitae and letter(s) of recommendation (from the advisor for a graduate student). All non-U.S. citizen applicants must have a current U.S. address. The materials must be received by February 19, 1999, and be addressed to: Olga Taussky Todd Celebration Selection Committee, Association for Women in Mathematics, 4114 Computer & Space Sciences Building, University of Maryland, College Park, Maryland 20742-2461.

Organizers: B. Case (chair), C. Gordon, D. O'Leary, G. Ratcliff, J. Taylor, S. Wiegand.
Information: More information about the conference and application procedures is in the January-February AWM Newsletter and at the websites: <http://www.awm-math.org>; <http://www.msri.org>; or e-mail awm@math.umd.edu.

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

Conference Chairs: L. J. Latecki (Univ. of Hamburg, Germany), R. A. Melter (Long Island Univ, retired), D. M. Mount (Univ. of Maryland, College Park), and A. Y. Wu (American Univ.).

Program Committee: G. Bertrand (Lab. PSI, France), A. D. Gross (CUNY/Queens College), A. Imiya (Chiba Univ., Japan), R. Klette (Univ. of Auckland, New Zealand), T. Y. Kong (CUNY/Queens College), J. Koplowitz (Clarkson Univ.), and I. Stojmenovic (Univ. of Ottawa, Canada).

Keynote Speaker: R. M. Haralick (Univ. of Washington).

Aim: This conference is designed to bring together workers who use geometric theory and techniques to solve problems related to computer vision. Specific solutions as well as overviews of more general topics are welcome.

Topics: Topics of interest are: digital geometry and topology, geometry-based image segmentation, morphology related to vision, computational geometry related to vision, convexity problems in vision, and shape description and similarity measures.

Deadlines: Abstract due date: December 21, 1998; manuscript due date: June 21, 1999.

Information: <http://www.spie.org/>.

*26-August 6 **SMS-NATO ASI: Integrable Systems: From Classical to Quantum**, Université de Montréal, Montréal, Canada.

Topics: The main topics to be discussed in this summer school are: integrable sys-

tems, classical mechanics, quantum mechanics, quantum groups, Bäcklund transformations, KdV equation, solitons, inverse scattering method.

Speakers: D. Bernard, B. Dubrovin, J. Har- nad, A. Its, V. Korepin, A. Leclair, T. Miwa, A. Morozov, A. Polychronakos, N. Reshetik- hin, S. Ruijsenaars, E. Sklyanin, C. A. Tracy, P. Winternitz.

Deadline: Application deadline: before March 12, 1999.

Information: G. David, Dép. mathématiques & statistique, Univ. Montréal, CP 6128- Centre-ville, Montréal H3C 3J7, Canada; tel: 514-343-6710, fax: 514-343-5700; <http://www.dms.umontreal.ca/activite/sms/>.

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

Suggested Topics: Fractals, math and music, tessellations, geometry in quilting, M. C. Escher work, math and 3-dimensional art, origami, mathematics and architecture, computer-generated art, math and art in culture, art in hyperbolic geometry.

Call for Papers: The conference publishes a refereed proceedings of presented papers. Papers accepted for publication should follow the proceedings format and be camera ready; however, for review they don't need to follow a set format. Interested authors must submit their papers by 1/15/99 for review. The authors will be notified of their papers' status and in case of acceptance will receive papers for revision by 3/15/99. Authors need to resubmit the papers in formatted, revised form by 5/2/99. In this step, the original clear figures and graphs should be submitted with the papers. If a presenter is not able to submit a paper for presentation, he or she may send an abstract (not more than 1 page) to be published in the Conference Proceedings. There is no reviewing process for abstracts. The deadline for abstracts is 4/23/99. The 1998 Bridges Proceedings is available for purchase (Barnes & Noble, Phone: 316-685-3600, Fax: 316-685-7729).

Registration Fee: There is a registration fee of \$40.00 for each day or \$100.00 for the entire conference plus \$25.00 for a Proceedings.

Accommodations: Besides area motels, Southwestern College offers lodging and meals on campus. For participants who fly to Wichita (the closest airport to Winfield) and report their arrival and departure times in advance, there will be transportation available for the evening of July 29 and for the morning of August 2.

Information: For more information (or if you want to add your e-mail to the mailing list) you may contact: R. Sarhangi, Bridges, Southwestern College, 100 College Street, Winfield, KS, 67156; e-mail: sarhangi@jinx.sckans.edu; tel: 316-221-8373; home page: <http://www.sckans.edu/~bridges/>. You may also contact the following Bridges Advisory Board members

regarding the conference: East: N. Friedman, Dept. of Mathematics and Statistics, State University of New York, Albany, NY 12222; e-mail: artmath@math.albany.edu; tel: 518-442-4621; West: C. Séquin, Computer Science Division, EECS Dept., University of California, Berkeley, CA 94720; e-mail: sequin@cs.berkeley.edu; tel: 510-642-5103.

August 1999

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

Invited Speakers: S. Abramsky, L. Beklemishev, D. Haskell, D. Miller, J. Rutten, P. Speissegger, and A. Weiermann.

Program Notes: The program will represent logic broadly; a featured topic will be computational logic. Tutorials will be offered by G. Hjorth, J. Klop, and I. Moerdijk. ESSLI-99 will take place in Utrecht during the two following weeks, August 8-20, 1999.

Submission: Abstracts of contributed papers must be submitted by the deadline of April 2, 1999, to the Program Chair: W. Hodges, School of Mathematical Sciences, Queen Mary and Westfield College, Mile End Rd., London E1 4NS, England; e-mail: w.hodges@qmw.ac.uk.

Program Committee: E. Barendsen, J. van Eijck, S. Goncharov, W. Hodges, D. de Jongh, C. G. Jockusch Jr. (chair), A. Kechris, P. Koepke, M. Lerman, D. Marker, J. van Oosten, A. Pitts, and A. Visser.

Local Arrangements: P. Blok, P. Dekker, J. van Eijck (chair), M. de Rijke, and Y. Venema.

Travel Grants: Travel grants (partly supported by an NSF grant) are available to graduate students in logic and recent Ph.D.s. Applications should be sent by April 2, 1999, to W. Hodges at the address above.

Information: Association for Symbolic Logic, 1409 West Green Street, Urbana, IL 61801; tel: 217-244-7902; fax: 217-333-9576; e-mail: asl@math.uiuc.edu; WWW: <http://www.math.uiuc.edu/~asl/>.

*10-15 **International Conference on Mathematical Logic**, Novosibirsk, Russia.

Program Committee: S. I. Adyan, B. Cooper, E. Engeler, Yu. L. Ershov (chairman), S. S. Goncharov, A. Macintyre, L. L. Maksimova, Yu. V. Matiyasevich, A. Nerode, H. Ono, E. A. Palyutin, M. G. Peretyat'kin, A. Prestel, A. A. Razborov, H. Schwichtenberg, R. Soare, and M. A. Taitslin.

Scope: The conference program is of wide scope including model theory, computability theory, proof theory, logic foundation of computer science.

Abstracts: Abstracts (one-page limit in 12 pt. font) will be published and should be sent by the deadline of June 1, 1999, to: A. N. Ryaskin, Conference on Mathematical Logic, Institute of Mathematics, Novosibirsk, 630090, Russia.

Information: For further information please contact tel: 7-383-2-356237, fax: 7-383-2-357808, e-mail: ryaskin@math.nsc.ru.

*** 20-26 Eleventh International Congress of Logic, Methodology and Philosophy of Science**, Krakow, Poland.

New Travel Grants: The Association for Symbolic Logic intends to provide a program of travel grants to support participation by logicians in this International Congress. A grant from the U.S. National Science Foundation has been applied for, to provide the necessary funds. Only those who are contributing a paper to the Congress or otherwise are official participants are eligible for a travel grant. Recipients must be U.S. citizens or permanent residents or must be employed in a U.S. university or other institution. Recent Ph.D. recipients, women, and members of minority groups are especially encouraged to apply. Air travel must be on U.S. flag carriers. Application must be made on a special form, which may be obtained from the ASL office (ASL, 1409 West Green Street, Urbana, Illinois 61801; e-mail: asl@math.uiuc.edu). The form may also be printed out from the ASL Web site: <http://www.aslonline.org/>. Applications must be received at the ASL office by the deadline of February 1, 1999.

Information: For more information about this Congress see the meeting home page: <http://www.uj.edu.pl/Phils/congress/>.

*** 23-September 4 Generalized Dirac Operators and their Geometric Scattering Theory**, Banach Center, Warsaw, Poland.

Organizing Committee: B. Bojarski (Warsaw, Poland), J. Bruening (Berlin, Germany), J. Eichhorn (Greifswald, Germany), Th. Friedrich (Berlin, Germany), R. Melrose (MIT, Cambridge), W. Mueller (Bonn, Germany).

Aim: The purpose of this workshop is to bring together researchers from both the mathematical physics and the geometric analysis branch of scattering theory in order to compare the methods and get an overview of the most recent results in both fields.

Proposed Topics: Scattering and spectral theory on complete noncompact manifolds; harmonic analysis on locally symmetric spaces; Hodge and de Rham cohomology of complete noncompact spaces; scattering theory for N -body Schrödinger operators; distribution of resonances.

Information: Please contact Th. Friedrich (e-mail: friedric@mathematik.hu-berlin.de) or consult our Web site: <http://www-irm.mathematik.hu-berlin.de/~pahlisch/Banach-99.html>.

*** 30-September 1 Sixth International Symposium on Generalized Convexity and Monotonicity**, University of the Aegean, Karlovassi, Samos Island, Greece.

Topics: The Symposium will address problems related to theoretical, algorithmic,

computational and modeling issues in connection with generalizations of convexity and monotonicity, as they arise in mathematical programming, economics, management science, engineering, numerical mathematics, variational inequalities, equilibrium problems, etc.

Program Committee: C. R. Bector (Winnipeg, Canada), R. Cambini (Pisa, Italy), B. D. Craven (Melbourne, Australia), J. P. Crouzeix (Clermont-Ferrand, France), J. B. J. Freuk (Rotterdam, The Netherlands), N. Hadjisavvas (Samos, Greece), S. Komlosi (Pecs, Hungary, chair), D. T. Luc (Hanoi, Vietnam), J. E. Martinez-Legaz (Barcelona, Spain), P. Mazzoleni (Milan, Italy), J. P. Penot (Pau, France), S. Schaible (Riverside, USA).

Invited Speakers: J. Jahn (Univ. of Erlangen, Germany), P. Pardalos (Univ. of Florida), A. Prekopa (Rutgers Univ.).

Deadlines: Early registration: March 31, 1999; late registration: June 30, 1999; final manuscripts of invited papers: at the symposium; titles and abstracts of talks: June 30, 1999; submission of manuscripts for publication in the symposium proceedings: September 30, 1999.

Summer School: A Summer School will precede the symposium. It will be held from August 25 to August 28, 1999, at the same place as the symposium (Karlovassi, Samos, Greece). The Summer School aims to introduce graduate and Ph.D. students, as well as scientists from other fields, to the subject of generalized convexity and generalized monotonicity.

Information: Please send an e-mail to gc6@math.aegean.gr, or visit the Web page <http://kerkis.math.aegean.gr/~gc6/GC6.htm> or write to: T. Vigli-Papadaki, Department of Mathematics, Univ. of the Aegean, Karlovassi 83200, Samos, Greece; tel: ++30-273-33914, 34750, fax: ++30-273-33896.

September 1999

*** 5-11 XX International Seminar on Stability Problems for Stochastic Models**, Maria Curie-Skłodowska University, Lublin-Naleczow, Poland.

Sponsors: The Steklov Mathematical Institute of the Russian Academy of Sciences, Moscow State University, and the Maria Curie-Skłodowska University in Lublin.

Scope: The scope of the seminar is traditional and embraces: limit theorems of probability theory and mathematical statistics, characterizations of probability distribution and their stability, theory of probability metrics, limit theorems and characterization problems in stochastic analysis, stochastic processes and queueing theory, applied statistics, actuarial and financial mathematics.

Program: The program will have invited and contributed paper sessions, and poster sessions.

Proceedings: It is intended to issue two volumes of the Proceedings of the Seminar in the Journal of Mathematical Sciences series

published by Plenum Publishing Company. **Program and Organizing Committee:** M. Arato (Debrecen, Hungary), A. Balkema (Amsterdam, The Netherlands), V. E. Bening (Moscow, Russia), R. Jajte (Lodz, Poland), V. V. Kalashnikov (Moscow, Russia), A. V. Kolchin (Moscow, Russia), V. Yu. Korolev (Moscow, Russia), V. M. Kruglov (Moscow, Russia), K. Kubacki (Lublin, Poland), E. Omey (Brussels, Belgium), A. Plucinska (Warsaw, Poland), Z. Rychlik (Lublin, Poland), L. Stettner (Warsaw, Poland), D. Szynal (Lublin, Poland), K. Urbanik (Wroclaw, Poland), V. M. Zolotarev (Moscow, Russia, chairman of the seminar).

Registration Fee: US \$50 for the participants, US \$30 for accompanying persons.

Accommodation: Approximately US \$30 per day per person in a double room at the hotel (meals included).

Deadlines: Pre-registration: December 1998; second announcement: January 1999; submission of abstracts: March 31, 1999; third announcement: May 31, 1999.

Information: Institute of Mathematics UMCS, Pl. Marii Curie-Skłodowskiej 1, 20-031 Lublin, Poland; e-mail: stabil@golem.umcs.lublin.pl; Steklov Mathematical Institute of the Russian Academy of Sciences, 8 Gubkin St, 117966 Moscow, Russia; e-mail: kolchin@mi.ras.ru; <http://stabil.umcs.lublin.pl/> or <http://bernoulli.mi.ras.ru/>.

*** 14-18 International Conference on Analytic Methods of Analysis and Differential Equations (AMADE)**, Minsk, Belarus.

Organizers: Institute of Mathematics of Belarusian National Academy of Sciences and Belarusian State University (BSU) together with Moscow State University and Computer Center of Russian Academy of Sciences.

Section Titles: Integral Transforms and Special Functions; Differential Equations and Applications; Integral, Difference, Functional Equations and Fractional Calculus.

Proceedings: The length of plenary invited lectures is 45 min, reports-20 min, and short communications-10 min. The publication of the abstracts is planned. Proceedings of Conference are supposed to be published in the Journal "Integral Transforms and Special Functions".

Organizing Committee: I. V. Gaishun (Belarus), V. A. Il'in (Russia) and A. V. Kozulin (BSU).

Information: Let us know by the end of December, 1998, of your intention to participate in the conference. Please send the following information: name, affiliation and position, address and telephone/fax, e-mail, section title, and title of report, to: AMADE, Department of Math. and Mech., Belarusian State Univ., 220050 Minsk 50, Fr. Skaryny Avenue 4, Belarus; e-mail: amade99@im.bas-net.by or amade99@mfmf.bsu.unibel.by. The second announcement with preliminary list of participants, registration fee, travelling information, accommodation, etc. will be sent in March of 1999.

* 15-19 **GD'99 - Seventh International Symposium on Graph Drawing**, Stirin Castle, Prague, Czech Republic.

Organizer: J. Kratochvil (chair, DIMATIA Charles Univ., Prague).

Scope: The symposium is a forum for researchers, practitioners, developers and users working on all aspects of graph visualization and representations. The range of issues considered in graph drawing includes algorithms, graph theory, geometry, topology, order theory, graphic languages, perception, applications, and practical systems. Much research in graph drawing is motivated by applications to systems for viewing and interacting with graphs. The interaction between theoretical advances and implemented solutions is an important part of the graph drawing field. Results on perception and visualization issues related to diagrams are relevant. Papers describing original research and surveys as well as demos of new graph drawing tools and techniques are being sought.

Topics: Topics of interest include, but are not limited to: Algorithms, models and techniques for drawing graphs, concepts for visualizations of structural information, perception issues related to diagram understanding; geometric and topological graph theory, planarity issues, intersection and visibility representations of graphs; tools and systems for graph drawing, user interfaces for viewing graphs, interactive exploration of large graphs, presentation of dynamic graphs and animation of graphs, applications of graph drawing to areas such as software visualization, user interface design and database query formulation.

Deadlines: Submission of papers: May 26, 1999; notification of acceptance: July 15, 1999; registration: July 31, 1999; final versions due: September 15, 1999.

Information:gd99@kam.ms.mff.cuni.cz or <http://www.ms.mff.cuni.cz/gd99/>.

* 16-22 **The Fourth International Workshop On Differential Geometry and Its Applications**, Brasov, Romania.

Topics: Riemannian and pseudo-Riemannian geometry, complex and quaternionic geometry, symplectic and contact geometry, foliation theory, topological aspects.

Program: 50-minute and 30-minute invited talks. A limited number of short oral and poster communications are also envisaged. The Proceedings will be published.

Call for Papers: Deadline for abstracts, July 1, 1999.

Grants: Fifteen grants (to cover lodging and meals) for young participants (under 35) will be offered. To obtain such a grant it is necessary to send a Curriculum Vitae et Studiorum to the organizers no later than July 1, 1999.

Information: R. Iordanescu (riordan@stoilow.imar.ro), Gh. Pitis (gh.pitis@info.unitbv.ro), D. Papuc (danpapuc@info.uvt.ro), D. Acu (dacu@science.sibiu.ro).

* 20-26 **International Symposium on Classical Analysis**, Kazimierz Dolny, Poland.

Organizer: The Technical University of Radom.

Topics: We would like to discuss the results and problems in such fields as: several complex variables (especially L^2 -methods); Riemannian and Hermitian geometry; spectral theory in Hilbert space; probability; mathematical physics. Particular consideration will be given to the interrelation of ideas from different areas and to promote wider knowledge of some important classical theories.

Invited Speakers: K. Goebel, J. Kiszyński, J. Lawrynowicz, E. Ligocka, J. Siciak, and M. Skwarczyński.

Scientific Program: The scientific program will consist of invited lectures and thirty 45-minute scientific communications in English.

Information: Information about registration fee, accommodation costs and submission of manuscripts for the Proceedings of the Symposium will be presented in the second announcement. For other information contact T. Mazur, Department of Mathematics, Technical University, Malczewskiego 29, 26-600 Radom, Poland; fax: 4848-26333 or 4848-23969; e-mail: mazurt@kiux.man.radom.pl or krupa@alpha.sggw.waw.ps.

October 1999

* **October National Conference on Issues Related to Doctoral Programs in Mathematics Education**, University of Missouri, Columbia, Missouri.

Sponsors: National Science Foundation in conjunction with the University of Missouri.

Survey: A survey of faculty at institutions where students graduate with doctoral degrees in mathematics education or an emphasis in mathematics education at any level, elementary, secondary, or collegiate, will be conducted to provide background information for the conference. Faculty of institutions offering doctoral programs are invited to contribute information about their program. If you would like to participate in this survey, a questionnaire will be posted after January 1, 1999, at <http://www.showmecercenter.missouri.edu/doctoralprograms/>.

Information: If you have any questions regarding this conference, please contact R. Reys, Univ. of Missouri, 104 Stewart Hall, Columbia, MO 65211; tel: 573-882-3740; e-mail: reysr@missouri.edu.

* **4-8 Workshop on the Complexity of Multivariate Problems**, Hong Kong Baptist University, Hong Kong, China.

Topics: Integration and approximation; average-case and worst-case analyses; the problem of high dimensionality; generation of low discrepancy sets and sequences.

Program: The workshop will include plenary talks by: K.-T. Fang, S. Heinrich, F. Hickernell, H. Niederreiter, E. Novak, A. Owen, I. Sloan, S. Tezuka, R.-H. Wang,

G. Wasilkowski, H. Wozniakowski. There will also be contributed talks. To present a talk submit an abstract of less than 300 words and including all contact information of the speaker to the address below, preferably electronically, by April 1, 1999. All speakers will be invited to submit papers based on their talks for publication in a special issue of the Journal of Complexity.

Organizers: This workshop is organized by F. Hickernell and H. Wozniakowski and will be held at Hong Kong Baptist University. It is part of the Hong Kong Fall 1999 Special Semester on Foundations of Computational Mathematics (FoCM) based at City University of Hong Kong.

Information: To find out the latest information on this workshop, please visit our Web page at the address below. There you can also sign-up to receive future announcements with details on registration and accommodations. Complexity'99, c/o Department of Mathematics, Hong Kong Baptist University, Kowloon Tong, Hong Kong, China; tel: 852 2339 7015; fax: 852 2336 1505; URL: <http://www.math.hkbu.edu.hk/complexity99/>; E-mail: complexity99@math.hkbu.edu.hk.

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.

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.

Topics: Banach spaces of analytic functions, Banach space theory, cone theory, convex analysis, Fourier analysis, KKM and fixed point theory, matrix analysis, nonlinear analysis, nonlinear PDEs, numerical ranges, operator algebras, operator semigroups and evolution equations, optimization theory, stochastic analysis, value distribution theory and complex dynamics.

Keynote and Invited Speakers: L. de Branges, L. G. Brown, P. G. Casazza, J. Chabrowski, M. D. Choi, C. H. Chu*, P. Cohen*, C. C. Cowen, B. D. Craven, A. Friedman, N. J. Kalton, W. A. Kirk, A. Kaminska, C. K. Li, P. K. Lin, K. Mizukami, F. Moricz, W. Oetli, G. Pisier, R. T. Rockafellar, W. Takahashi, S. L. Troyanski, G. X. Z. Yuan, Z. Shi. (*to be confirmed).

Registration Fee: US\$100 (subject to change, and no charge for students).

Proceedings: The Proceedings of ICMAA 2000 will be published as a special issue of the Taiwanese Journal of Mathematics. All speakers are invited to contribute their papers to the Proceedings.

Deadline: For contributive talks: September 30, 1999.

Information: Please visit our WWW homepage at <http://www.math.nsysu.edu.tw/u/icmaa2000>, <http://www.math.uiowa>.

edu/icmaa2000; e-mail: icmaa2000@math.nsysu.edu.tw; fax: 886-7-5253809. One can e-mail to N.-C. Wong at wong@math.nsysu.edu.tw or B. Lin at bllin@pop.math.uiowa.edu for more information.

* 21-22 **1999-2000 ASL Winter Meeting**, Washington, DC.

Submissions: Abstracts of contributed papers from ASL members should be sent by the deadline of October 1, 1999, to the ASL office.

Program Committee: J. Larson (chair).

Information: Association for Symbolic Logic, 1409 West Green Street, Urbana, Illinois 61801; tel: 217-244-7902; fax 217-333-9576; e-mail: asl@math.uiuc.edu; WWW <http://www.math.uiuc.edu/~asl/>.

February 2000

* 20-22 **International Conference on Stochastic Optimization: Algorithms and Applications**, University of Florida, Center for Applied Optimization, Gainesville, Florida.

Aim: Stochastic programming is the study of practical procedures for decision making under the presence of uncertainties and risks. Stochastic programming approaches have been successfully used in a number of areas such as energy and production planning, telecommunications, forest and fishery harvest management, engineering, and transportation. Recently, it was realized that the practical experience gained in stochastic programming can be expanded to a much larger spectrum of applications including financial modeling, asset-liability management, bond portfolio management, currency modeling, risk control, and probabilistic risk analysis. This conference will focus on recent advances in theory and implementation issues of stochastic programming algorithms, software, and applications.

Topics: The conference will feature approximately 30-40 invited speakers during a three-day period. Major topics to be covered in the conference include: (1) advances in theory and implementation of stochastic programming algorithms; (2) sensitivity analysis of stochastic systems; and (3) stochastic programming applications.

Information: For further information please contact: S. Uryasev, Center for Applied Optimization, Dept. of Industrial and Systems Engineering, Univ. of Florida, 474 Weil Hall, Gainesville, FL 32611-6595; tel: 352-392-3091; fax: 352-392-3537; e-mail: Uryasev@ise.ufl.edu; URL: <http://www.ise.ufl.edu/uryasev/>.

June 2000

* 3-7 **1999-2000 ASL Annual Meeting**, University of Illinois at Urbana-Champaign, Illinois.

Program Notes: The program will reflect the accomplishments and future prospects of modern logic, in recognition of the new millennium.

Local Arrangements: L. van den Dries, C. W. Henson, C. G. Jockusch Jr., and A. Pillay.

Information: Association for Symbolic Logic, 1409 West Green Street, Urbana, IL 61801; tel: 217-244-7902; fax: 217-333-9576; e-mail: asl@math.uiuc.edu; WWW: <http://www.math.uiuc.edu/~asl/>.

July 2000

* 3-7 **Functional Analysis Valencia 2000**, Technical University of Valencia, Valencia, Spain.

Sponsors: Technical Univ. of Valencia (UPV) and Univ. of Valencia (UV).

Program: There will be about 15 invited lectures on various topics of functional analysis. Participants will have the opportunity to submit abstracts for lectures of 25 minutes in parallel sessions; details will be announced. The Proceedings will be published in the series North-Holland Math. Studies.

Invited Speakers: G. Dales (Leeds, England), T. W. Gamelin (UCLA), G. Godefroy (Paris VI, France), J. Lindenstrauss (Hebrew Univ., Jerusalem), N. Kalton (Columbia, MO), R. Meise (Düsseldorf, Germany), A. Pełczyński (Polish Acad. of Sciences, Warsaw), G. Pisier (Paris VI, France and Texas A&M), D. Vogt (Wuppertal, Germany), P. Wojtaszczyk (Univ. of Warsaw, Poland).

Scientific Organizing and Program Committee: R. M. Aron (Kent State), K. D. Bierstedt (Paderborn, Germany), J. Bonet (Univ. Politècnica, Valencia), J. Cerdà (Univ. Barcelona), H. Jarchow (Univ. Zürich), M. Maestre (Univ. Valencia), J. Schmets (Liège, Belgium).

Local Organizing Committee: C. Fernández, A. Galbis, P. Galindo, D. Garcia, M. López Pellicer, V. Montesinos, A. Peris.

Preregistration: e-mail: VLC2000@uni-paderborn.de, or write by regular mail to: K. D. Bierstedt, Univ. Paderborn, FB 17, Math., D-33095 Paderborn, Germany; or J. Bonet, Universidad Politècnica de Valencia, Departamento de Matemática Aplicada, E-46071 Valencia, Spain.

Information: The homepage of the meeting can be found at the Web sites: <http://math-www.uni-paderborn.de/VLC2000/> and <http://www.upv.es/VLC2000/>.