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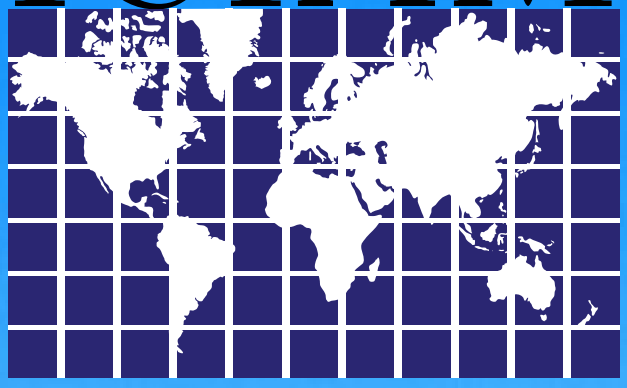
ICIAM



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The ICIAM newsletter was created to express the interests of our membership and partner organizations and the views expressed in this Newsletter are those of the authors and do not necessarily represent those of ICIAM or the Editorial team. We welcome articles from members and associations, both announcing events, on-site reports from events and industry news. www.iciam.org

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Meet the Editorial Team

Following Board approval at the ICIAM Board meeting of May 11, 2013, an Editorial Board for DIANOIA has been formed based on nominations by member societies. C. Sean Bohun will continue as Managing Editor, and Barbara Keyfitz will act as Editor-in-Chief until the next ICIAM Board meeting, scheduled for May 2014.

DIANOIA is pleased to welcome the new Board, whose names and contact information are listed on the front page.

Managing Editor

C. Sean Bohun is a Professor of Mathematics at the University of Ontario Institute of Technology. He received his PhD from the University of Victoria (Canada), and works in Industrial and Applied Mathematics with a particular interest in partial differential equations that arise in natural processes. His research themes include: semianalytical techniques, chemical processes and crystal growth.

Editor-in-Chief

Barbara Lee Keyfitz is the Dr Charles Saltzer Professor of Mathematics at the Ohio State University. She has a PhD from New York University, and works in partial differential equations. She is the current President of ICIAM.

Subscribing

The ICIAM Newsletter appears quarterly, in electronic form, in January, April, July and October. Issues will be posted on the ICIAM Web Page at www.iciam.org/News. If you would like to be notified by e-mail when a new issue is available, please subscribe to the Newsletter. There is no charge for subscriptions. To subscribe or unsubscribe, visit the webpage given above, or go directly to groups.google.com/group/iciam-news.

Editorial Board

James (Jim) Crowley received his PhD in Applied Mathematics from Brown University. He has served in positions in the US Air Force, including Assistant Chief Scientist at the Air Force Systems Command. He was a program manager for applied and computational mathematics at the Defense Advanced Research Projects Agency (DARPA) and served as the directorate head for Mathematics and Information Sciences at the Air Force Office of Scientific Research. He was also a tenured associate professor at the US Air Force Academy.

Thierry Horsin is a full professor at the Conservatoire National des Arts et Métiers (CNAM) in Paris France, an old institution dedicated to courses for adults and mainly interested in connecting science and industry. His main field of research is the control of PDEs. He is a corresponding member of the EMS.

Pammy Manchanda is a Professor in the Department of Mathematics at Guru Nanak Dev University, India. She is the Joint Secretary (acting Secretary) of the Indian Society of Industrial and Applied Mathematics (ISIAM) and an ISIAM representative to ICIAM. She is a reviewer for Zentralblatt. Her research area is Functional Analysis and its application to Science and Finance; a particular focus is Variational Inequalities and Wavelets.

Roberto Natalini got his PhD in Mathematics from the University of Bordeaux (France) in 1986. He is research director at Istituto per le Applicazioni del Calcolo "Mauro Picone" of the Italian National Research Council since 1999, after being Associate Professor at University of Rome "La Sapienza" (1998–1999). His research themes include: fluid dynamics, road traffic, semiconductors, chemical damage of monuments and biomathematics. He is on the Board of the Italian Society of Industrial and Applied Mathematics.

Timo Reis received a diploma in mathematics in 2002 and a doctoral degree in mathematics in 2006, all from the from the Technische Universität Kaiserslautern. From 2006-2011 he was a lecturer at the Technische Universität Berlin and member of the Research Center MATHEON "Mathematics for key technologies" in Berlin. He was appointed as professor at the Department of Mathematics, Universität Hamburg in 2011. His research interests include mathematical systems theory, with emphasis on adaptive control and model reduction of differential-algebraic and infinite-dimensional systems.

Zdenek Strakos is a Professor at the Charles University in Prague. He received his PhD and DSc in Computer Science and Mathematics from the Academy of Sciences of the Czech Republic. Besides holding various positions at his home country, he spent three years at Emory University, Atlanta. His main research interests include analysis of numerical methods, algebraic matrix computations, Krylov subspace methods and numerical stability. He is a member of the Applied Mathematics Committee of the EMS and of the Householder Committee.

2014 ICIAM Board Meeting and Workshop

THE OHIO STATE UNIVERSITY

By resolution of the ICIAM Board at its May 2013 meeting, the 2014 ICIAM Board Meeting will take place in Columbus, Ohio, USA on Saturday, May 17, 2014. It will be preceded by a two-day workshop, Thursday and Friday, May 15-16, 2014 on the campus of the Ohio State University. All Board members are invited to participate in the workshop; those who wish to speak are encouraged to notify the ICIAM President. Details on accommodation, schedule and other arrangements will be distributed later.

At this time, some Board members may be interested in two scientific meetings that are scheduled immediately after the Board meeting: the SIAM Activity Group on Optimization Conference, May 19-22, in San Diego, California, USA; and the IEEE International Parallel and Distributed Processing Symposium, May 19-23, in Phoenix, Arizona, USA. Information about both meetings appears elsewhere in this newsletter.

MCA 2013

by James M Crowley

The Mathematical Congress of the Americas met in Guanajuato, Mexico, August 5-9. Hosted by the Mexican mathematics institute CIMAT (Centro de Investigación en Matemáticas), the first ever congress of its kind successfully showcased the broad spectrum of mathematical sciences from the Americas, with a notable strong presence from Latin American mathematicians.

MCA 2013 had 979 attendees; the countries contributing the most attendees were (those countries with 10 or more participants are listed): Mexico 355; USA 219; Brazil 147; Canada 60; Chile 52; Argentina 35; Colombia 24. A total of 42 countries were represented. Of the 979 attendees, 256 were students (many of these from Mexico).

Many of the invited presentations at MCA 2013 were videotaped and may be found online on the MCA 2013 web site (www.mca2013.org).

It is anticipated that MCA will be a quadrennial event, meeting the year before the International Congress of Mathematicians, and hence two years before (or after) the ICIAM Congresses.

It should also be noted that an organization is being planned, modeled loosely on ICIAM (the Council of Industrial and Applied Mathematics), to oversee future Math Congresses of the Americas and to serve to coordinate mathematics within the western hemisphere.

Workshop on Mathematics of Climate Change, Related Hazards and Risks, Guanajuato, México

by Christiane Rousseau

The workshop, a joint initiative of IMU, IUGG and IUTAM took place in Centro de Investigación Matemáticas (CIMAT) in Guanajuato (Mexico) from July 29 to August 2, 2013. The workshop was sponsored by a major grant of ICSU, by CIMAT, by the three unions IMU, IUGG and IUTAM, and by ICIAM. It was supported by the National Academy of Sciences in the US, by the Academia Mexicana de Ciencias, by the Regional Office of Latin America and the Caribbean of ICSU, by Integrated Research on Disaster Risk (IRDR) and World Climate Research Program (WCRP).

The members of the Scientific Committee were Susan Friedlander (University of Southern California/IMU), Paul Linden (University of Cambridge/IUTAM) and Ilya Zaliapin (University of Nevada, Reno/IUGG). Together with Christiane Rousseau (University of Montreal/IMU), they also formed the Organizing Committee.

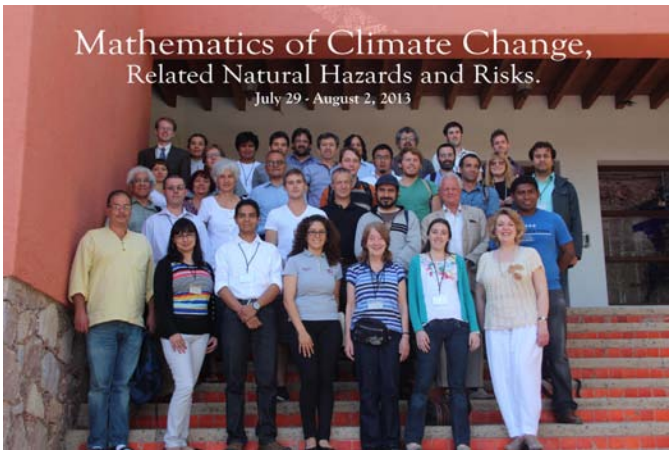
The workshop was attended by 39 participants: 28 regular participants, 8 invited speakers, and 3 organizers. The targeted participants were from Latin America and some of the participants came from elsewhere in the world. There were 17 participants from Latin America, 8 from the US, 2 from Israel and one from Germany. In addition, several local CIMAT scientists attended the workshop on a regular basis. The participants had different backgrounds from mathematics to physics, geophysics, statistics and engineering. Five participants were selected to be ICIAM Fellows:

- David Ricardo (Peru)
- Stefanie Talento (Uruguay)
- Jesús Alvarez-Castillo (Mexico)
- Fernando Nicolás Arellano Guerrero (Mexico)
- Mario Yandar (Colombia)

The scientific program consisted in eight mini-courses of three hours, each given by a specialist of the theme, as well as a poster session, poster presentation and two

round tables. The three themes covered by the lectures were: 1. Methodology of the climate and natural hazards research, 2. Climate change and environmental hazards, 3. Socio-economic implications of climate change and extreme hydro-meteorological hazards.

Most lecturers stayed on site for the whole workshop and interacted with the participants. The lecturers were Graciela Canzani (Argentina), Michael Ghil (France and US), Eugenia Kalnay (US), Roberto Mechoso (US), George Philander (US), Bala Rajaratnam (US), Eli Tziperman (US), and Oscar Velasco Fuentes (Mexico). Christiane Rousseau also gave a general lecture on "Mathematics of Planet Earth 2013". Nine posters by the participants were presented during the workshop and they were all of exceptional quality. Three students — Stefanie Talento, Tania Faundez, and Ivan Sudakov — were asked to present their poster in front of the group.



Workshop participants. —Image used with permission.

It is the opinion of the organizers that such a workshop is very useful, and really fills a need inside the scientific community. This is a particularly so for the scientists from Latin America and the Caribbean, as well as other developing regions, whose direct contact with the field leaders in regular meetings is limited due to monetary and logistic issues. At the final round table, most of the participants said that they learnt a lot and that the workshop achieved the goal of being educational and capacity building, since it allowed them to make contacts and know personally some of the field leaders, as well as get familiar with the current research trends and challenges. The rigour of the lecturers was appreciated, as well as the fact that the lecturers were conscious of the weaknesses of the models. To them, the lecturers behaved ethically, by not presenting science as a religion and pointing out the weak points and the areas where more work or better models are needed.

The workshop lectures have been recorded by a professional firm and will be posted on YouTube and made accessible from the website of CIMAT, from the MPE website, from the IMU website and, hopefully, from the websites of the other partners supporting the event.

The organizers enthusiastically suggest exploring a possibility of holding a follow-up workshop.

Christiane Rousseau got her PhD from University of Montreal in 1977. She is a professor at the University of Montreal. She was Chair of her department for 1993–1997 and interim Director of the CRM in 2008–2009. She was President of the Canadian Mathematical Society in 2002–2004, and she is Vice-President of the International Mathematical Union for 2011–2014. She initiated "Mathematics of Planet Earth 2013" (MPE2013) in 2009. Her research is in dynamical systems. She is also very involved in the popularizing of mathematics and in the training of preservice high school teachers.

Subscribing to the ICIAM Newsletter

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ICIAM Developing Countries Fellowships

The International Council for Industrial and Applied Mathematics (ICIAM) has adopted the policy that in non-Congress years it will give support to existing conferences (typically to three conferences per year), with the support used to fund a number of ICIAM Fellowships for participants from developing countries and regions. The following principles will govern this support.

1. Applications may be submitted at any time by email (afitt@brookes.ac.uk) to the ICIAM Secretary. There is no prescribed form for the application. Applicants should give details of the conference, the organising body, and the plans for the use of ICIAM funds.
2. Each year there will be three "rolling deadlines" on 31 March, 31 July and 30 November. The decision on which conferences to support, if any, will be made by the ICIAM Officers within one month of each of the deadlines. The Officers' decision will be final.
3. The level of support for 2013 will be up to USD 3,500 per conference: a proportion of these funds is normally paid "upfront" when the application has been approved, and the remaining funds are paid after the conference has taken place and the report has been received and approved by the ICIAM Officers.
4. The ICIAM funds are expected to be used to fund a number of ICIAM Fellowships for selected delegates from underdeveloped countries and regions.
5. The selection of the ICIAM Fellows and the determination of their level of support will be the responsibility of the conference organisers.
6. The existence of the ICIAM Fellowships should be advertised under that name on the conference web site, and the support of ICIAM acknowledged in an appropriate way on that website and in printed materials for the conference.
7. Within six months of the end of the Conference a report should be submitted to the ICIAM Treasurer. The report should briefly describe the scientific achievements of the conference, list the ICIAM Fellows and where they travelled from, and indicate the funds expended on each ICIAM Fellow.
8. Unexpended funds must be returned to the ICIAM Treasurer.
9. Other things being equal, preference will be given to conferences held in developing countries.

Guidelines approved by ICIAM in Zürich, 18–19 November 2007. Revised application procedures approved in Kyoto, 2 June 2012. Distributed to member societies, January, 2013.

2014 SIAM Conference on Optimization (OP14)

by Jim Crowley

SIAM will hold its triennial conference on optimization in San Diego, California on May 19-22, 2014. Individuals attending the ICIAM Workshop and Board meeting in Columbus (May 15-17) may be interested in attending the SIAM Conference on Optimization. Some details on the conference and how to participate are below:

- The conference will be held at the Town and Country Resort & Convention Center, San Diego, California, USA May 19-22, 2014
- The SIAM Conference on Optimization will feature the latest research in theory, algorithms, software and applications in optimization problems.
- The Organizing Committee Co-chairs are Miguel F. Anjos, Polytechnique Montréal, Canada; and Michael Jeremy Todd, Cornell University, USA.

Submission Deadlines: October 21, 2013 for minisymposium proposals; and November 18, 2013 for submitting abstracts for contributed and minisymposium speakers. The Call for Presentations is available at: www.siam.org/meetings/op14/

Jim Crowley
Executive Director, SIAM
215-382-9811

Workshop on Quantitative Methods in Landscape Ecology with a Focus on Sustainable Ecosystems, University of Kwazulu-Natal, Durban, South Africa

by Holly Gaff, Wayne M Getz, Victoria Goodall, Kesh Govinder, Fred S Roberts and Sadie J Ryan

Introduction

The application of mathematical methods to questions involving large scale ecological systems is called *landscape ecology* when the topography of the ecological system is taken into account. This is a new and historically neglected, yet rapidly developing field that relies on remote sensing to collect ecological and population level data. With the development of more sophisticated remote sensing platforms and more complex data, it is essential that the methodology and processing techniques advance concurrently.

The objective of the workshop was to bring together both local and international expertise in the field of landscape ecology, in order to facilitate discussions and advance research topics in this field. The workshop provided an excellent forum for local students and researchers to interact with international leaders in this field.

Highlights

The workshop consisted of a variety of tutorials, didactic and research talks. This allowed students and researchers the opportunity for hands-on training and exposure to new software (agent-based modeling, GIS and animal movement), information on emerging science areas in this field and a more in-depth understanding of the work being done in these areas.

All of the talks presented at this workshop were of an incredibly high standard and provided very clear information on the research topics which ranged from infectious diseases, biostatistics, simulation of savanna ecosystems, population biology, functional habitat heterogeneity, Dengue fever in Ecuador, dynamic ecosystem change, animal movement using home range and state-space models, computational population biology, and much more.

The tutorial sessions were very relevant for students and researchers. They allowed participants the opportunity to use software programs and complete exercises using the GIS and agent-based modeling software. These exercises stimulated discussion about the analyses and the various ways that they could be applied. The hands-on use of the software made it more realistic for participants, and they were also able to take the software away with them for future use.

A poster session, which included 2 minute presentations, allowed more students to provide a quick overview of their work which stimulated further discussion and interest in their posters. This was an excellent way of quickly sparking an interest in the posters.

Lessons

Both personally, and we believe for the group in general, one of the key benefits of this workshop was being able to get a better picture of the work being done in landscape ecology and the opportunity to interact with experts in the field. Discussions about modeling, the environment and potential for future work were common after-hours and a number of potential collaborations and future research topics have been discussed. The field trip after the workshop helped to solidify these relationships. The workshop definitely helped to strengthen the research ties between the USA and Africa and local students were exposed to a wide range of research topics and techniques which would not have been possible with local interactions only.

One of the special achievements of the conference was a presentation given by Nancy Barker. She is one of the first deaf zoologists in South Africa. Her presentation was filmed and will be shown on television in due course.

ICIAM Fellows

Dr Sood Ndimuligo (sndimuligo@janegoodall.or.tz) from the Jane Goodall Institute in Tanzania and Dr Edward Mwavu (emwavu@forest.mak.ac.ug) from the University of Makerere in Uganda were ICIAM Fellows. The funds awarded from ICIAM were matched with other funds to support their attendance at the meeting.

Acknowledgements

In addition to ICIAM, the workshop was supported by the National Research Foundation of South Africa, the National Science Foundation (USA), the Society for Mathematical Biology, the Mathematical Biosciences Institute and the University of KwaZulu-Natal.

Holly Gaff is an Associate Professor in the Department of Biological Sciences at Old Dominion University. Dr. Gaff's research interests have focused mainly on studying the ecology of ticks and tick-borne diseases through surveillance and mathematical modeling. With funding from the NIH, Army, Navy and others, she has led an active tick surveillance project in the Hampton Roads area since 2009 to help better quantify the current risk of tick-borne diseases in Virginia and beyond.

Wayne M. Getz has B.Sc.Hons (1972) and PhD (1976) degrees in Applied Mathematics from the University of the Witwatersrand, South Africa, and a DSc (1995) from the University of Cape Town. In 1979 he took up a faculty position at the University of California, Berkeley, where he is currently the A. Starker Leopold Professor of Wildlife Ecology. Professor Getz has appointments as an Extraordinary Professor at UKZN, University of Pretoria and Durban Institute of Technology. He was a Founding Trustee of SACEMA, University of Stellenbosch. Professor Getz has coauthored a research monograph on Population Harvesting (Princeton UP), a calculus textbook (Wiley Inc.) and has published more than 250 scientific papers in peer-reviewed Applied Mathematics and Biology journals.

Victoria Goodall is currently a Data Scientist for the South African Environmental Observation Network. She is also a PhD student with the University of the Witwatersrand. Her research has focused on the application of various statistical approaches to the analysis of animal movement data collected in the Kruger National Park, South Africa. She formerly worked in the automotive and marketing research sectors as a CRM Analyst and Statistician.

Kesh Govinder is Dean and Head of School of Mathematics, Statistics and Computer Science at the University of KwaZulu-Natal, Durban, South Africa. He works in the field of differential equations and explores applications in Mathematical Biology, Cosmology and Astrophysics and Financial Mathematics. He was recently elected to the Academy of Sciences of South Africa.

Fred S. Roberts is a Distinguished Professor of Mathematics at Rutgers University and a member of the graduate faculties in Computer Science, Mathematics, Operations Research, Computational Molecular Biology, BioMaPS (Interdisciplinary PhD Program at the Interface between the Biological, Mathematical, and Physical Sciences), Industrial and Systems Engineering, and Education. He serves as Director of the Command, Control, and Interoperability Center for Advanced Data Analysis (CCICADA), founded in 2009 as a University Center of Excellence (COE) through the US Department of Homeland Security (DHS). For 16 years until 2011, he was Director of DIMACS, the Center for Discrete Mathematics and Theoretical Computer Science, one of the original US National Science Foundation (NSF) Science and Technology Centers, with 15 partner organizations and over 325 affiliated scientists; he is now DIMACS Emeritus Director and Senior Advisor.

Sadie J. Ryan is an assistant professor in the Department of Environmental and Forest Biology at SUNY College of Environmental Science and Forestry, and also a member of the Center for Global Health and Translational Science (CGHATS) at SUNY Upstate Medical University in Syracuse, New York. Ryan's training is in Ecology and Evolutionary Biology (BA, Princeton), with emphasis on conservation biology, quantitative ecology, and particularly, disease ecology. Ryan's lab at SUNY ESF is home to multiple projects in ecology at the human interface, spanning socioecological systems of disease ecology, conservation, agroforestry and invasive insect control; from Upstate New York to the Old and New World tropics.

List of Speakers for ICIAM 2015

by Scientific Program Committee of ICIAM 2015

Twenty seven invited speakers of ICIAM 2015 have been decided recently, who were selected by the Scientific Program Committee of ICIAM 2015 and approved by the ICIAM Board meeting held on May 11, 2013 in Beijing. As an important part of ICIAM 2015, these invited speakers will highlight the most recent advances in mathematics and their applicability to science, engineering, and industry. In addition to the traditional and strong focus on applied mathematics, these speakers will emphasize on industrial applications and computational science. Besides invited speakers, ICIAM 2015 will also feature prize lectures, public lectures, mini-symposia, contributed papers, and posters. The submission system of ICIAM 2015 is expected to open in March 2014.

Confirmed Invited Speakers

Dr. Bob Bixby
Rice University, USA

Dr. Analisa Buffa
Istituto di Matematica Applicata e Tecnologie Informatiche, Italy

Dr. Gunnar Carlsson
Stanford University, USA

Dr. Jean Michel Coron
Institut Universitaire de France

Dr. Lisa Fauci
Tulane University, USA

Dr. Martin Hairer
Warwick University, UK

Dr. Ravi Kannan
Microsoft Research, India

Dr. Karl Kempf
INTEL Corporation, USA

Dr. Shunlong Luo
Academy of Mathematics and Systems Science, CAS, China

Dr. Volker Mehrmann
Technische Universität Berlin, Germany

Dr. Gabriel Nguetseng
Université of Yaoundé I, Cameroon

Dr. Yasumasa Nishiura
Tohoku University, Japan

Dr. Ricardo Nochetto
University of Maryland, USA

Dr. Shige Peng
Shandong University, China

Dr. Nancy Reid
University of Toronto, Canada

Dr. Mark Sagar
The Laboratory for Animate Technologies, The University of Auckland, New Zealand

Dr. Claudia Sagastizábal
Instituto Nacional de Matemática Pura e Aplicada, Brazil

Dr. Laure Saint-Raymond
École Normale Supérieure, France

Dr. Jesús Sanz Serna
Universidad de Valladolid, Spain

Dr. Ludger D. Sax
Grid Optimisation Europe – System Planning Gas & Water, Germany

Dr. Jin-Keun Seo
Yonsei University, Korea

Dr. Zuowei Shen
National University of Singapore

Dr. Ian Sloan
The University of New South Wales, Australia

Dr. Simon Tavaré
Cancer Research UK Cambridge Institute, UK

Dr. Eric Vanden-Eijnden
Courant Institute, NYU, USA

Dr. Barbara Wohlmuth
Technische Universität München, Germany

Dr. Yinyu Ye
Stanford University, USA

Scientific Program Committee

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Description The SIAM Conference on Optimization will feature the latest research in theory, algorithms, software and applications in optimization problems. A particular emphasis will be put on applications of optimization in health care, biology, finance, aeronautics, control, operations research, and other areas of science and engineering. The conference brings together mathematicians, operations researchers, computer scientists, engineers, software developers and practitioners, thus providing an ideal environment to share new ideas and important problems among specialists and users of optimization in academia, government, and industry.

Themes

- Applications in health care
- Applications in engineering
- Conic optimization
- Polynomial optimization
- Mixed integer nonlinear optimization
- Nonlinear optimization
- Stochastic optimization
- Derivative-free optimization

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Todd Munson, Argonne National Laboratory, USA
Warren Powell, Princeton University, USA
Daniel Ralph, University of Cambridge, United Kingdom
Ariela Sofer, George Mason University, USA
Akiko Yoshise, University of Tsukuba, Japan

Important Dates

Minisymposium proposals	Oct. 21, 2013
Abstracts for contributed and minisymposium speakers	Nov. 18, 2013
SIAM Student Travel Award and Post-doc/Early Career Travel Award	Nov. 4, 2013 Applications
Pre-Registration Disconnect time is 4:00 PM EDT	Apr. 21, 2014
Hotel Reservation	Apr. 14, 2014

To RSVP to the conference on Facebook and connect with other attendees, find roommates etc., please visit www.facebook.com/events/118163328394763/. If you are tweeting about the conference, please use the designated hashtag to enable other attendees to keep up with the Twitter conversation and to allow better archiving of our conference discussions. The hashtag for this meeting is #SIAMOP14.

SIAM and the Conference Organizing Committee wish to extend their thanks and appreciation to the U.S. National Science Foundation and the U.S. Department of Energy (DOE), Office of Science, for their support of this conference.

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Yogesh SIMMHAN (University of Southern California, USA)

PhD FORUM CO-CHAIRS
Luc BOUGÉ (ENS Cachan, France)
Bo HONG (Georgia Institute of Technology, USA)

IPDPS 2014 PRELIMINARY CALL FOR PARTICIPATION

The 28th IEEE-IPDPS will be held in Phoenix at the Arizona Grand Resort, an all-suites family-friendly resort and meeting place. Phoenix has an international airport and is the hub for several US airlines. It is only a six hour drive from Los Angeles and Las Vegas and the starting point for one day tours of the Grand Canyon as well as other historic communities in the area. Visit the IPDPS Website at www.ipdps.org for more information.

IPDPS 2014 CALL FOR PAPERS

SCOPE: Authors are invited to submit manuscripts that present original unpublished research in all areas of parallel and distributed processing, including the development of experimental or commercial systems. Work focusing on emerging technologies is especially welcome. Topics of interest include, but are not limited to:

•Parallel and distributed algorithms, focusing on topics such as: numerical, combinatorial, and data-intensive parallel algorithms, scalability of algorithms and data structures for parallel and distributed systems, communication and synchronization protocols, network algorithms, scheduling, and load balancing.

•Applications of parallel and distributed computing, including computational and data-enabled science and engineering, big data applications, parallel crowd sourcing, large-scale social network analysis, management of big data, cloud and grid computing, scientific and biomedical applications, and mobile computing. Papers focusing on applications using novel commercial or research architectures, big data approaches, or discussing scalability toward the exascale level are encouraged.

•Parallel and distributed architectures, including architectures for instruction-level and thread-level parallelism; petascale and exascale systems designs; novel big data architectures; special-purpose architectures, including graphics processors, signal processors, network processors, media accelerators, and other special purpose processors and accelerators; impact of technology on architecture; network and interconnect architectures; parallel I/O and storage systems; architecture of the memory hierarchy; power-efficient and green computing architectures; dependable architectures; and performance modeling and evaluation.

•Parallel and distributed software, including parallel and multicore programming languages and compilers, runtime systems, operating systems, resource management including green computing, middleware for grids, clouds, and data centers, libraries, performance modeling and evaluation, parallel programming paradigms, and programming environments and tools. Papers focusing on novel software systems for big data and exascale systems are encouraged.

BEST PAPERS AWARDS: The program committee will nominate papers for recognition in several categories including the four conference topic areas and will consider other paper attributes that merit recognition from the conference. The four top best papers will be selected for presentation and the others will receive honorable mention in the conference program.

WHAT/WHERE TO SUBMIT: Submitted manuscripts may not exceed ten (10) single-spaced double-column pages using 10-point size font on 8.5x11 inch pages (IEEE conference style), including figures, tables, and references. See IPDPS Website for details. IPDPS will again require submission of abstracts and registration of papers one week before the paper submission deadline without any late exceptions.

REVIEW OF MANUSCRIPTS: All submitted manuscripts will be reviewed. Submissions will be judged on correctness, originality, technical strength, significance, quality of presentation, and interest and relevance to the conference scope. Submitted papers should NOT have appeared in or be under consideration for another conference, workshop or journal. Abstracts are due October 11, 2013, and **full manuscripts must be received by October 18, 2013**. This is a final, hard deadline; to ensure fairness, no extensions will be given. Notification of final decisions will be mailed by December 09, 2013, and camera-ready papers will be due February 01, 2014. Questions may be sent to PC2014@ipdps.org.

IMPORTANT DATES

•August 01, 2013	Proposals for new workshops due
•October 11, 2013	Abstracts due
•October 18, 2013	Submission deadline
•December 09, 2013	Author notification
•February 01, 2014	Camera ready due

IPDPS 2014 CALL FOR NEW WORKSHOPS

IPDPS workshops, held on the first and last days of the symposium, provide attendees an opportunity to explore special topics. For more information on organizing a new workshop, contact the Workshops Chair (workshops@ipdps.org) **before August 1, 2013**.

ENHANCED STUDENT AUTHOR PROGRAM 2014

All student authors at IPDPS 2014 will also have the opportunity to present a poster and participate in the TCPP-sponsored mentoring program. Deadlines for PhD Forum poster proposals and mentoring program enrollment to will be **after January 1, 2014**.

6th Elgersburg School on Mathematical Systems Theory Elgersburg (Germany) March 16 - 22, 2014

by Timo Reis

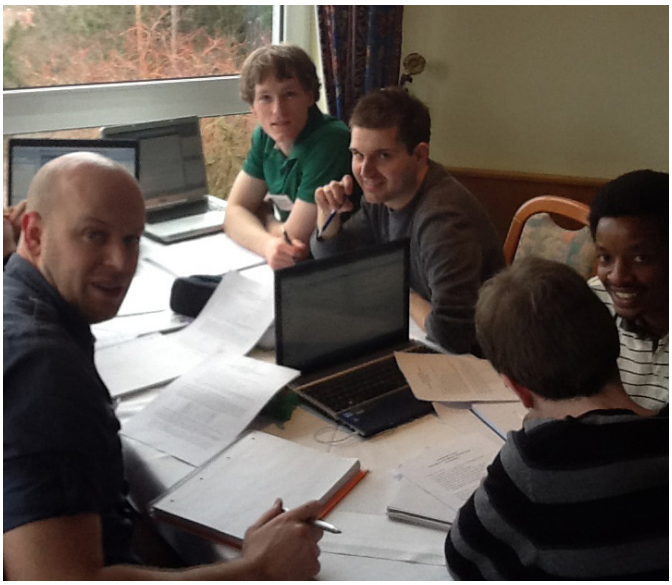
The organizers have the pleasure to announce the "6th Elgersburg School on Mathematical Systems Theory". The school consists of two courses:

Hybrid Dynamical Systems
by **Professor Andrew Teel**
(Univ. of California, Santa Barbara)

and his assistant and coauthor of "Hybrid Dynamical Systems"
Professor Rafal Goebel
(Loyola University Chicago)

Mathematical Biology
by **Professor Stuart Townley**
(University of Exeter, UK)

and his assistant
Dr Chris Guiver
(University of Exeter, UK)



—Image used with permission.

Program: Each day there will be lectures of 90 mins on both subjects, group work on example sheets in the afternoon, and example classes in the evening.

Participants: The school is addressed to postgraduate students and postdocs in control, either in mathematics or engineering, very good graduate students are also welcome. We would be grateful if you could pass on this information to any potential candidates.

Location: The workshop takes place in the "Hotel Am Wald" in Elgersburg (Thuringia).

—Image used with permission.

The cost for the hotel including full board (evening Feb. 16-22, 2013) is 500 € per person for a single room and 390 € for a double room per person sharing. The location has a capacity for 40 participants.

Registration: Applicants are asked to provide their CV and a letter of reference from their supervisor. The deadline for applications is Nov. 30, 2013. The applications will be ranked according to excellence and suitability to decide on participation.

Scholarships: There are 16 scholarships available with funds for travel support, accommodation and subsistence.

Further information: Please visit the website www.tu-ilmenau.de/math/forschung/tagungen/elgersburg-schools/elgersburg-school-2014/.

Timo Reis received a diploma in mathematics in 2002 and a doctoral degree in mathematics in 2006, all from the from the Technische Universität Kaiserslautern. From 2006-2011 he was a lecturer at the Technische Universität Berlin and member of the Research Center Matheon "Mathematics for key technologies" in Berlin. He was appointed as professor at the Department of Mathematics, Universität Hamburg in 2011. His research interests include mathematical systems theory, with emphasis on adaptive control and model reduction of differential-algebraic and infinite-dimensional systems.

Call for nominations: Olga Taussky-Todd Lecture 2015

by Olga Taussky-Todd Lecture Committee

The Olga Taussky-Todd Lecture is held every four years at the International Congress on Industrial and Applied Mathematics (ICIAM). This honor is conferred on a woman who has made outstanding contributions in applied mathematics and/or scientific computation. The lecture is named in tribute to the memory of Olga Taussky-Todd, whose scientific legacy is in both theoretical and applied mathematics, and whose work exemplifies the qualities to be recognized.

The officers and board of ICIAM now call for nominations for the third Olga Taussky-Todd Lecture, to be given at ICIAM 2015 in Beijing over 10-14 August 2015.

A nomination will consist of:

1. an explanation of why the individual is being nominated, and a description of her work;
2. a brief CV and contact information for the nominee.

The deadline for submission of nominations is: 30 November 2013.

The selection process is conducted by the Olga Taussky-Todd Lecture Committee. The Committee for the 2015 Lecture consists of:

> Helena Nussenzveig Lopes, (Chair) IM-UFRJ, Brasil; Douglas N. Arnold, University of Minnesota, USA; Alison Etheridge, University of Oxford, UK; Mythily Ramaswamy, TIFR Bangalore, India; Barbara Wohlmuth, TU München, Germany; Bin Yu, University of California Berkeley, USA.

Nominations should be sent by email to: hlopes@im.ufrj.br. Receipt of nominations will be acknowledged by email to the nominator. If email is not possible, nominations may be sent by fax or post, but must arrive by the deadline.

Professor Helena Nussenzveig Lopes
Instituto de Matemática,
Universidade Federal do Rio de Janeiro
Caixa Postal 68530, 21941-909,
Rio de Janeiro, RJ, BRASIL
Fax: +5521 2260 1884 Phone: +5521 2562 7512 ext. 233.

First Vietnam International Applied Mathematics Conference (VIAMC)

Dates: December 19–20, 2013
Place: Sai Gon University,
273 An Du'o'ng Vu'o'ng phu'ò'ng 3,
District 5, Ho Chi Minh City, Vietnam
Organized by:

- Vietnam Society for Application of Mathematics (VSAM)
- Sai Gon University (SGU)
- International Institute for Research, Training and Development of Human Resource (IHR)

Description This is the first international conference organized by VSAM, and therefore the organizers are making a world-wide call for participants from Vietnam and abroad. We appeal to the ICIAM family to join this academic activity, in order to increase international co-operation with VSAM and, more generally, with the Vietnamese mathematical community.

Main Topics of the Conference Applied Algebra, Logic and Cryptology; Applied Analysis; Applied Probability and Statistics; Computer Science; Mathematical Finance and Management; Industrial Mathematics (with a focus on application of mathematics to problems arising from industry, the economy and society); Scientific Computation and Numerical Analysis.

Other topics of mathematical application will be gladly welcomed. The conference will include 6-8 plenary invited lectures by outstanding mathematicians (final list available by the end of September 2013) and contributed short talks in parallel sessions.

Scientific Program Committee

Co-chairs: Le Hung Son (Hanoi University of Science and Technology, Vietnam) and Taketomo Mitsui (ICIAM-Officer at Large, Japan)

Pham Ky Anh (Hanoi University of Science, Vietnam), Dang Quang A (Vietnam Academy of Science and Technology, Vietnam), Jacques Belair (University of Montréal, Canada), Pham Huy Dien (Vietnam Academy of Science and Technology, Vietnam), Nguyen Quy Hy (Hanoi University of Science, Vietnam), Tran Van Lang (Institute for Applied Informatics and Mechanics, Ho Chi Minh City, Vietnam), Tong Dinh Quy (Hanoi University of Science and Technology, Vietnam), Phan Dinh Tuan (University of Technology, Ho Chi Minh City, Vietnam)

Organizing Committee

Co-chairs: Nguyen Viet Ngoan (Rector of Sai Gon Uni-

versity) and Hoang The Dung (Secretary General of VSAM)

Tong Dinh Quy (Hanoi University of Science and Technology, Hanoi), Tran Tuan (CRV Co. Jsc, Hanoi)

Registration Participants may register through the conference website www.vietsam.org.vn/viamc2013 or by sending the completed registration form directly (by email) to the contact by November 15, 2013. The registration fees are 50 USD for ordinary participants (25 USD for students and accompanying persons). Fee includes conference banquet, lunches, coffee breaks, conference materials and proceedings. Fees are payable in cash at the registration desk of the conference.

Excursions We are planning to organize a tour to visit Angkor Wat (Cambodia), December 21–23, 2013. The tour cost will be announced soon.

Deadlines

Registration Form	Oct. 21, 2013
Submission of abstracts	Nov. 18, 2013

Conference Contact Address:

www.vietsam.org.vn/viamc2013

Or contact: Prof. Le Hung Son, School of Applied Mathematics and Informatics, Hanoi University of Science and Technology (HUST), Dai Co Viet Road Nr.1, Hanoi

Email: 1/ son.lehung@hust.edu.vn

2/ sonlehungbk44@gmail.com

We look forward to welcoming you to Vietnam, in December 2013.

Call for nominations for ICIAM Prizes for 2015

by ICIAM Prize Committee

The ICIAM Prize Committee for 2015 calls for nominations for the five ICIAM Prizes to be awarded in 2015. Each ICIAM Prize has its own special character, but each one is truly international in character. Nominations are therefore welcomed from every part of the world. A nomination should take into account the specifications for a particular prize (see www.iciam.org/council/PrizeDescriptions.pdf), and should contain the following information:

- Full name and address of person nominated;
- Web home page if any;
- Name of particular ICIAM Prize;
- Proposed citation (concise statement about the outstanding contribution in fewer than 250 words);
- Justification for nomination (cite nominator's reason for considering candidate to be deserving, including explanations of the scientific and practical influence of the candidate's work and publications);
- Brief CV or short biography of the nominee;
- Name and contact details of the proposer.

The deadline for nominations is 31 October 2013. Nominations should be sent to the President of ICIAM, Barbara Keyfitz, preferably in electronic form. Nominations will be acknowledged.

ICIAM Prize committee:
Committee chair: Barbara Keyfitz; Donatella Marini (chair of Collatz Prize Subcommittee) Felix Otto (chair of Lagrange Prize Subcommittee) Pam Cook (chair of Maxwell Prize Subcommittee) Takashi Kako (chair of Pioneer Prize Subcommittee) Philippe Ciarlet (chair of Su Buchin Prize Subcommittee)

ICIAM, the International Council for Industrial and Applied Mathematics, is the world organization for applied mathematics and computational science. Its members are mathematical sciences societies based in more than 20 countries. For more information, see the Council's web page at www.iciam.org.

Barbara Lee Keyfitz
President of ICIAM

Congress Site for ICIAM 2019 Selected

The officers and board of ICIAM announce that the site for the 2019 International Congress on Industrial and Applied Mathematics (ICIAM 2019) was selected as Valencia, Spain. The organizers of the Congress are the Sociedad Española de Matemática Aplicada (SEMA); the dates are July 15-19, 2019. The Council noted that the competition to host the 2019 Congress was unusually strong. Excellent bids were also presented by ECMI (for a venue in Amsterdam, Netherlands) and by SBMAC (with the venue Foz do Iguacu, Brazil). The Council congratulates SEMA on its winning candidacy, and thanks all the competitors for their careful and imaginative entries.

The International Congress of Mathematicians 2014

SEOUL ICM 2014

Dates: August 13–21, 2014
Place: COEX, Seoul, Korea

Applications for Travel Grants

Second Call The NANUM 2014 Travel Grants is open to 1,000 mathematicians from developing countries who wish to partake in the International Congress of Mathematicians 2014. NANUM means "generous sharing" in Korean. See www.icm2014.org/en/participants/mathematicians for more details.

Important dates:

- Application period extended: Oct. 16, 2013 – Oct. 31, 2013
- Deadline to submit reference letters: Nov. 7, 2013
- Review applications & Selection of the travel grant recipient completed: Dec. 31, 2013
- Notification to applicants of acceptance: January 2014

To be eligible for this travel grant, the application should include:

- A curriculum vitae
- Publication list (if you have any) or a brief statement describing your doctoral research

To complete the online application, the following information should be provided:

- Personal information (full name, date of birth, gender, country of residence and nationality, affiliation) with contact information (postal address, e-mail)
- The name with the e-mail address of the head of a department of the applicant's institution (Advanced graduate students and postdoctoral fellows within 5 years of receiving Ph.D. are recommended to submit a letter of reference from the doctoral advisor.)

By popular demand, NANUM application submission site will be re-opened on Oct. 16, 2013 and will remain open until Oct. 31, 2013. We hope that this grace period may enable the people who missed the deadline to submit their applications. Applications can only be submitted online. Direct link to enter the online application process is nanum.icm2014.org. For any queries, please do not hesitate to contact Seoul ICM 2014 Organizing Committee Secretariat at icm@icm2014.org. Please visit the website of ICM 2014 (www.icm2014.org) regularly for updated information.

About ICIAM

The International Council for Industrial and Applied Mathematics (ICIAM) is a worldwide organisation for professional applied mathematics societies. Its members are national and regional societies dedicated to applied and industrial mathematics, and other societies with a significant interest in industrial or applied mathematics.

The Council works

- to promote industrial and applied mathematics globally;
- to promote interactions between member societies;
- to promote the goals of these member societies;

and to coordinate planning for the ICIAM Congresses, held every four years, on industrial and applied mathematics.

ICIAM is governed by a Board comprising representatives of its member societies. Programs run by ICIAM, and the bylaws of the organization, can be found on the ICIAM web page, www.iciam.org.

The Full Members and their representatives
ANZIAM (Australia and New Zealand Industrial and Applied Mathematics): Ian H. Sloan
ASAMACI (Asociación Argentina de Matemática Aplicada Computacional e Industrial): Eduardo Adrián Santillan Marcus
CAIMS-SCMAI (Canadian Applied and Industrial Mathematics Society, Société Canadienne de Mathématiques Appliquées et Industrielles): Ian Frigaard
CSCM (Chinese Society for Computational Mathematics): Xuejung Xu
CSIAM (China Society for Industrial and Applied Mathematics): Pingwen Zhang and Ya-xiang Yuan
ECMI (European Consortium for Mathematics in Industry): Michael Günther
ESMTB (European Society for Mathematical and Theoretical Biology): Vincenzo Capasso
GAMM (Gesellschaft für Angewandte Mathematik und Mechanik): Peter Benner and Sergio Conti
IMA (Institute of Mathematics and its Applications): Iain S. Duff and David Abrahams
ISIAM (Indian Society of Industrial and Applied Mathematics): Abul Hasan Siddiqi and Pammy Manchanda
JSIAM (Japan Society for Industrial and Applied Mathematics): Shin'ichi Oishi and Hiroshi Kokubu
KSIAM (Korean Society for Industrial and Applied Mathematics): Chang Ock Lee
MOS (Mathematical Optimization Society (formerly Mathematical Programming Society)): Philippe Toint
NORTIM (Nordiska föreningen för Tillämpad och Industriell Mathematik): Helge Holden
ROMAI (Societatea Română de Matematică Aplicată și Industrială): Costica Morosanu
SBMAC (Sociedade Brasiliera de Matemática Aplicada e Computacional): Helena J. Nussenzveig Lopes
SEMA (Sociedad Española de Matematica Aplicada): Tomás Chacón Rebollo
SIAM (Society for Industrial and Applied Mathematics): Sven Leyffer and Irene Fonseca
SIMAI (Società Italiana di Matematica Applicata e Industriale): Alessandro Speranza and Giovanni Russo
SMAI (Société de Mathématiques Appliquées et Industrielles): Maria J. Esteban and Alain Damlamian
SPMAC (Sociedad Peruana de Matemática Aplicada y Computacional): Obidio Rubio Mercedes
VSAM (Vietnamese Society for Applications of Mathematics): Lê Hùng Són

The Associate Members and their representatives
AMS (American Mathematical Society): Don McClure
AWM (Association for Women in Mathematics): Jill Pipher
ChinaMS (Chinese Mathematical Society): Zhi Ming Ma
CMS-SMC (Canadian Mathematical Society, Société Canadienne de Mathématiques): Elena Braverman
EMS (European Mathematical Society): Franco Brezzi
IMS (Institute of Mathematical Statistics): Hans Rudolf Künsch
IMU (Israel Mathematical Union): Edriss S. Titi
LMS (London Mathematical Society): Stephen Huggett
MSJ (Mathematical Society of Japan): Yoichi Miyaoka
ÖMG (Österreichische Mathematische Gesellschaft): Alexander Ostermann
PTM (Polskie Towarzystwo Matematyczne (Polish Mathematical Society)): Łukasz Stettner
SingMS (Singapore Mathematical Society): Weizhu Bao
SMF (Société Mathématique de France): Bernard Helffer
SMG-SMS (Schweizerische Mathematische Gesellschaft - Société Mathématique Suisse - Swiss Mathematical Society): Jean-Paul Berrut
SPMPA (Sociedad Paraguaya de Matemática Pura y Aplicada): Gladys Ortiz Granada
UMI (Unione Matematica Italiana): Ciro Ciliberto

The current officers of ICIAM
President: Barbara Lee Keyfitz, USA
President-Elect: Maria J. Esteban, France
Secretary: Alistair Fitt, UK
Treasurer: Jose Alberto Cuminato, Brazil
Members-at-Large: Mario Primicerio, Italy and Taketomo (Tom) Mitsui, Japan