On the cover: The University of Campinas is a public research university in the state of São Paulo, Brazil. Located about 12 km from the centre of Campinas, the aerial view shows the unique design of the campus with most of the academic buildings located in blocks emanating from the center in a radial fashion about a central circular plaza.

ICIAM

The ICIAM Dianoia
Vol. 4, No. 2, April 2016

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 and letters from members and associations, announcing events, on-site reports from events and industry news. www.iciam.org

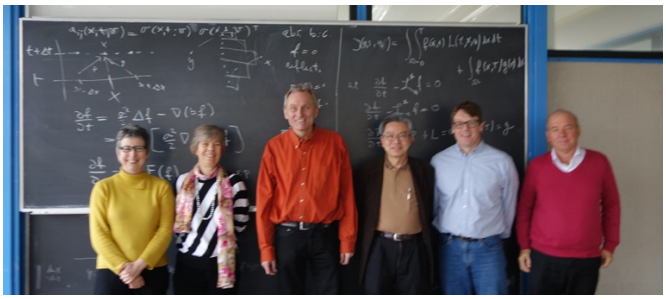
Subscribing to the ICIAM Newsletter

The ICIAM Newsletter appears quarterly, in electronic form, in January, April, July and October. Issues are posted on the ICIAM Web Page at iciam.org/dianoia. 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.

ICIAM News and Announcements

The ICIAM Officers Meeting

The "new" set of ICIAM Officers had a first face-to-face meeting in early March. We have, for the time being, settled on the routine established a couple of years ago. Besides being in frequent contact by e-mail (and in-person meetings of some subsets) we have a telephone conference in the fall (usually for about 90 minutes) and a meeting of all of us about two months before the annual Board meeting. This year we met in Berlin, courtesy of the new Officer-at-Large, Volker Mehrmann. All six of us were there: besides Volker, the group was comprised of Maria J. Esteban, for the first time as President, Sven Leyffer, ICIAM's new Secretary, myself for the first time as Past-President, Poti Cuminato, beginning his second term as Treasurer, and Tom Mitsui, beginning a second term as Officer-at-Large. It has been observed, by some past presidents, that in-person meetings, besides enabling the officers to conduct the day-to-day business of ICIAM, are enjoyable opportunities for a group of people, some of us from quite different backgrounds, working, in the case of the present set, on four different continents, to get to know each other better and to partake of the local culture. And this year was no exception. We did work hard, and Board members will see some of the fruits of this effort at the meeting in May: revised and better-organized schedules for setting up important committees and for improving the process of consulting with member societies on critical questions. We worked through the budget, and spent a lot of time on ways to make the new website serve us better, both as a resource for members and an efficient way for the Officers to communicate with each other.



The new ICIAM officers: Maria Esteban (President), Barbara Keyfitz (Past President), Volker Mehrmann (Officer-at-Large), Tom Mitsu (Officer-at-Large), Sven Leyffer (Secretary) and Poti Cuminato (Treasurer) —Image used with permission.

But thanks to the generosity of our host and his sponsors we also had several wonderful meals in Charlottenburg (the section of Berlin that houses the Technical University): a wonderful pub with more kinds of draft beer than one could count, and an elegant dinner on a "ship" (fortunately firmly attached to the shore).

In principle, the Council pays for the Officers' expenses, which include flying halfway around the world for some of us. Fortunately for the budget, we are often able to combine these trips with other business to lessen the burden on ICIAM, or to find additional sponsors. For these we are very grateful. Overall, serving ICIAM is a privilege, but it is also a pleasure.

From left to right: Maria Esteban, Barbara Keyfitz, Volker Mehrmann, Tom Mitsu and Sven Leyffer —Image used with permission.

The Upcoming Board Meeting

Please see the detailed announcements elsewhere in the Newsletter of the May board meeting and call for bids for ICIAM 2023.

Changes to DIANOIA

Now that the Newsletter has been established, it is time to expand the board of editors and reporters. We are asking for volunteers from all the member societies.

Series: Brief interviews with young mathematicians: #1

by Roberto Natalini

DIANOIA plans to publish a series of interviews with young applied mathematicians. We start the series with this interview, by Roberto Natalini, of Annalisa Buffa, winner of the 2015 ICIAM Collatz Prize.

Q: How have you decided to become a mathematician?
A: I studied computer engineering at the University and I realized I really loved analysis thanks to my teachers in Calculus and Advanced Calculus.

Q: Who have been your teachers and mentors?
A: At the beginning, surely my Calculus teacher (Prof. Gianni Gilardi) was quite a reference for me. I did my PhD with Prof. Franco Brezzi and since then (1996), he has been my mentor, my teacher, my coach.

Q: Recently you have been awarded the prestigious ICIAM Collatz Prize, which aims to recognize individual scientists under 42, for their outstanding work on industrial and applied mathematics. You have been the first woman to receive this prize and in the motivations we read: "in recognition of her spectacular use of deep and sophisticated mathematical concepts to obtain outstanding contributions to the development of computer simulations in science and industry." Could you explain what is the main focus of your research? What are the applications of your results and what are, according to your feeling, the main breakthrough you have achieved?
A: The focus of my research is numerical methods for partial differential equations, with a special attention to electromagnetic wave propagation and, more in general, to problems having a specific geometric structure. More recently I have been involved in the design of numerical methods based on splines and on the link between geometric modelling and numerical methods for PDEs. I think I managed to improve on the existing techniques a few times, and the theories and the methods I proposed (together with my co-authors) have been used both by mathematicians and by practitioners.

Q: You have a strong focus on applications. But, really, what do you like in applications? Is it a matter of mathematical taste, or something more related to your personality?
A: The use of mathematics in applications is a matter of trying to be useful. To develop mathematical knowledge imposes a rigour in other sciences that helps future developments and set up rules for the use of computational tools.

Q: Are you able to directly interact with your industrial partners, or you need some intermediate collaborators to translate mathematics in practical implementations?
A: I do interact directly, and it all depends on the problem at hand. The greater the sophistication of the numerical tools needed to simulate a desired phenomena, the more likely the common language is one of mathematics. Then, we can be useful, directly.

Q: Some years ago you were also awarded with a European Reaserch Council (ERC) Starting Grant, now completed in due time. What are the main results of your project? Could you give some suggestions to the young applicants around Europe?
A: We have developed the mathematical foundations of spline based methods for the simulation of PDEs. The results obtained during the ERC have been the starting background for a long term activity which goes from pure mathematical results to industrial applications and code developing. An ERC Starting Grant is a tremendous boost for the career of young scientists. Every young researcher having a high quality and challenging project should submit a proposal to the ERC panels.

Q: What are your future plans? Have you some main research direction in mind for the next few years?

A: In view of the lack of funding, my scientific choices are strongly influenced by the need of funds. We have a large group and need to keep it alive.

Q: You are married with two quite young children. Have you any problem to make math and family live together?

A: Of course, I have problems! As everybody having a demanding job.

Q: But so, where are the problems for women in science? Why are there so few women in the key positions of responsibility (but not for ICIAM; obviously)? What do you think about the gender balance policy?

A: This is a difficult question: I consider that too many times I am asked to join committees or boards, just in order to guarantee the gender balance. This helps my career, surely, by also makes my life very busy. The general balance manifests itself in consistently inviting the same three or four women... is this really useful?

Q: How do you spend your time when you are not working?

A: I spend my free time mostly with my kids.

Q: Have you other interests or hobbies?

A: I like outdoor sports such as skiing, trekking and sailing.

Q: Finally, a last general question. What do you wish for Mathematics in 2016?

A: That Applied and Computational Mathematics gain more room within the mathematics community.

Roberto Natalini received his PhD in Mathematics from the University of Bordeaux (France) in 1986. He is director of the Istituto per le Applicazioni del Calcolo "Mauro Picone" of the National Research Council of Italy since 2014. 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 and is Chair of the Raising Awareness Committee of the European Mathematical Society.

Bid Process for ICIAM 2023

International Council for Industrial and Applied Mathematics (ICIAM) — December 2015

Member societies are invited to apply to hold the Tenth International Congress of Industrial and Applied Mathematics in 2023.

Rules and resolutions concerning the process

The application process is governed by the "Rules," given below, and by the following resolution of the ICIAM Board at its meeting in Helsinki in May 2001.

a) Prior to deciding about the location of each ICIAM Congress, the Council, at its Annual Board meeting, will decide on the amount of a financial compensation for the use of ICIAM's name.

b) The amount has to be decided for each Congress.

c) The payment must be transferred at the latest by the end of the Congress.

d) Should there be other smaller conferences where ICIAM's name is to be used, a similar policy will be implemented.

The ICIAM Board, at its next meeting in São Paulo (Campinas), Brazil on Saturday, 7 May, 2016, will set the license fee for the Tenth Congress in 2023 (as a reminder, the license fee for ICIAM 2019 was set at USD 37,000). In addition the local expenses, including registration fee and travel expenses, of the five prize winners and the Olga Taussky-Todd lecturer, are to be covered by the Congress organizers.

Timetable for applications

§1. The first of the rules below specifies that the preproposal should be submitted, in written form, to

the ICIAM Board seven years in advance. In the present circumstances this is interpreted to mean that the pre-proposal should be submitted to the meeting of the Board in São Paulo (Campinas), Brazil on Saturday, 7 May, 2016. While applications submitted at the meeting itself will be admitted, the Officers request that if possible applications should be submitted to the ICIAM President, Maria J. Esteban, no later than 31 March, 2016. In this respect "written form" will be considered to allow submissions to be made via email.

At this stage the required amount of documentation is small, but do please note the requirement to specify both the location and a preliminary budget.

§2. The second of the rules below is expected to be interpreted by the meeting of the Board in São Paulo (Campinas), Brazil on Saturday, 7 May, 2016 in the following way:

> Some of those who submit an application as above will be invited to submit a more detailed application by 31 October, 2016. At this second stage it is important that a more detailed budget be presented, and that a Congress Director be nominated. This is a person who is willing and able to devote considerable time and effort to the project until the Congress in 2023. Past precedent suggests that the Board will also be expecting to see detailed consideration given to the question of how the expected high scientific level is to be achieved.

The early date for the detailed submission, namely the end of October, 2016, is to allow the Officers to arrange site visits to each of the remaining candidate sites, and for the reports of the site visits to be consolidated, before the Board meeting anticipated to be held in 2017. Of course no Officer who may be perceived to have a conflict of interest will take any part in the selection process.

The final decision on the site of the 2023 Congress will be made by the Board at its meeting in 2017.

Approved by ICIAM in Helsinki, May 2001
Distributed to member societies, December 2015.
Maria J. Esteban
President, ICIAM

Rules concerning the application for an ICIAM congress

§1. An application for hosting and organizing an ICIAM congress should be submitted to the ICIAM Board seven years in advance. This application is to be submitted in written form and should propose a location and a budget outline.

§2. Six years in advance a Congress Director should be nominated and a more detailed budget submitted. On the basis of this information the ICIAM Board will make its decision on the applicants.

§3. Five years in advance the hosting society makes a proposal for the chair of the Scientific Program Committee (SPC) to the ICIAM Board which has the final say and appoints the SPC Chair at this time.

§4. Four years in advance the SPC Chair submits to the ICIAM Board a proposal concerning the SPC members. Again, the final decision on the composition of the SPC is made by the ICIAM Board (four years in advance). Members of the SPC are individual members and cannot delegate this membership to other representatives. The SPC should be of reasonable size (15–20 members) and of exceptional scientific qualification. The member societies should be involved in the selection of SPC members.

§5. Two and a quarter years in advance the ICIAM Board will approve/disapprove (not modify) the list of invited speakers submitted by the SPC. The invitations of the invited speakers should be signed by the Congress Director and the SPC Chair.

§6. The organizers of ICIAM Congresses are urged to stick to the successful structure of previous ICIAM Congresses. At all these Congresses the scientific programme consisted of:

- invited lectures;
- minisymposia;
- contributed presentations in lecture form; and
- contributed presentations in poster form.

All types of presentations have to be included, all being weighted equally. Contributed papers have to be accepted to the extent practically possible (a factor to be considered in the choice of a conference venue).

In the composition of the minisymposia program the member societies, invited by the ICIAM President, are asked to take an active role. The SPC should make sure that all fields, especially those not covered by invited speakers, are represented at the ICIAM Congress and are of highest possible quality.

Approved by CICIAM in Sydney, 29 July 1997.
Revised December 2003 to change 'CICIAM' to 'the ICIAM Board', and 'CICIAM Chair' to 'ICIAM President'.
Reinhard Mennicken
ICIAM Board

ICIAM Board meeting in Brazil, May 2016

The 2016 ICIAM Board meeting in Brazil will be on May 7th at Unicamp, Campinas.

Together with the Board meeting, SBMAC is organizing the workshop: International Workshop on Industrial Mathematics to be held on May 05 and 06.

Register now!

Call for presententions

website: www.cemeai.icmc.usp.br/IWIMath16/index.html

All ICIAM representatives are invited to submit a talk to the workshop, please see the site.
Hotel accommodation will be covered for those presenting a talk at the workshop.

SBMAC UNICAMP FAPESP

Open consultation in Europe on Mathematics for Horizon 2020 next Work Programme

The European Commission, Directorate-General for Communication Networks, Content and Technology (DG CNECT), has launched in February 2016 an open consultation "Mathematics for Excellence in Science in Horizon2020"; see the detailed information at ec.europa.eu/futurium/en/content/open-consultation-mathematics-horizon-2020-next-work-programme. The objective is to get a good overview of what is important and collect concrete proposals that can subsequently be used in developing the Horizon2020 work programmes.

Anni Hellman, Deputy Head of Unit C1 (eInfrastructure) DG CNECT, has initiated the Consultation with the following posting:

Mathematics is recognized today as essential and indispensable for addressing the major challenges in science, technology and society. Faced with the abundance of data on social, technical, economic, ecological, and technological systems new and sophisticated mathematical tools are required for these data to help us tackle pressing societal challenges and provide us with the necessary technological advantages. The "knowledge society" is "ignorant" without mathematics!

This consultation seeks to inform the future work programmes (2018-19-20) with innovative mathematical content. Two facts motivate this request: today's digital society depends on mathematics and algorithms; there is a vast pool of mathematical talent in Europe. The conclusion is that Europe can be first in mathematical applications for big data, computing and especially HPC, to be first in modern science and innovation.

The potential of mathematics was already explored in a very successful online consultation which provided excellent food for thought for a workshop held in November 2014. The conclusions of that workshop were collected in a report.

This consultation will stay open until April 30, 2016. Please post your ideas or comment on other contributions below. We welcome you to contribute by:

- commenting on the proposed areas below;
- proposing new areas;
- pointing out application domains where new mathematics are needed.

Here is an initial list of proposed new research areas:

- Topological data analysis and other potential mathematical methods for big data analysis
- HPC, Exascale and Exabyte
- Quantum algorithms
- High-dimensional inference problems Secrecy and Privacy

The objective is to be upstream but applicable. What are the new areas emerging in mathematics definitely worth investing in at European level, which we can expect to produce ground breaking outcomes for Europe in key areas such as HPC and big data analytics? In other vital areas?

> *"There are 10 types of people in this world: those who understand binary and those who don't."* — Anonymous

The online consultation can also be entered directly at the web page ec.europa.eu/futurium/en/content/online-consultation-mathematics-excellence-science-horizon2020 where the existing contributions can be ranked or new contributions can be posted.

Recent activities of the ICSU

by Tom Mitsui

As reported in the previous issue of *Dianoia*, ICIAM is a Scientific Associate of ICSU — International Council for Science — and, in cooperation with IMU, has taken several steps for ICSU activities. I am reporting here about some current news relating to ICSU.

ICSU Committee Renewed: ICIAM had previously established its ICSU Committee to gather and review the details regarding an appropriate proposal to ICSU. At the Officers' meeting in Berlin held in March, it was decided to bolster the strength of this committee by ap-

pointing ICIAM Past President, Barbara Keyfitz, as the committee co-chair, with myself as the other co-chair. Members of this committee include: Alain Damlamian, Bjorn Enqguist, Helge Holden, Rolf Jeltsch, Olavi Nevanlinna, Christiane Rousseau and Abdul Hasan Siddiqi. If you are interested in joining the ICSU Committee please contact either Barbara or myself.

ICSU New Logo: In March ICSU adopted its new logo (see the picture below). It sharpens up the previous design by optimizing it for digital publishing and social media. The additional colour increases legibility, emphasizes the distinctive arches and allows the central globe to emerge more prominently.

INTERNATIONAL COUNCIL FOR SCIENCE

CLIVAR Seeks Executive Director: The International CLIVAR (Climate and Ocean - Variability, Predictability, and Change) Project, whose office is located in Qingdao, China, is seeking an Executive Director. The goal of CLIVAR is to improve understanding and prediction of ocean-atmosphere interactions and their influence on climate variability and change, to the benefit of society and the environment. CLIVAR is a core project of WCRP (World Climate Research Programme). The application deadline is May 30, 2016. Those who are interested in applying for this position, please refer to the Web page www.wcrp-climate.org/resources-room/wcrp-news/806-clivar-seeks-executive-director for more information.

ICSU Newsletter: ICSU is publishing its newsletter four times a year. Within its pages you can find information regarding ICSU events, activities (both regionally and internationally) and Council news and updates. It can be accessed at the Web page www.icsu.org/about-icsu/about-us where you call also subscribe to the newsletter so you never miss an issue.

Taketomo (Tom) Mitsui is Professor Emeritus of Nagoya University, Nagoya, Japan. He received his doctoral degree from Kyoto University and has been engaged with several universities, the last one was Doshisha University, Kyoto, Japan. His main research interest is numerical analysis of ordinary differential equations and related topics. He is a Fellow of the Japan Society for industrial and Applied Mathematics, and is currently serving ICIAM as Officer-at-Large.

Report on Philippines Summer School

by Jose Ernie C. Lope

In January, 2016, a Conference on Partial Differential Equations took place in Cebu, Philippines. It was a follow-up of a successful 2014 CIMPA Summer School on PDEs. ICIAM provided support to both events in the form of ICIAM Fellowships. What follows is a report on the conference, courtesy of the author, Professor Jose Ernie C. Lope of the University of the Philippines Dillman.

The Conference

In recent years, there has been a growing interest in ordinary and partial differential equations among Filipino students. This is due in part to an EU-ASIA LINK-funded program called International Masters in Applied Mathematics and Information Sciences (IMAMIS) which enabled the visit of more than a dozen European experts to UP Diliman's Institute of Mathematics from 2005 to 2007.

To cater to this growing interest in ODEs and PDEs, a CIMPA Research School entitled Partial Differential Equations: Analysis, Numerics and Applications to Floods and Tsunamis was organized in mid-2014 in UP Diliman, with Patrizia Donato (University of Rouen) and Jose Ernie Lope (University of the Philippines Diliman) as the school's administrative and scientific coordinators. The two-week school featured lectures both on theory and numerical simulations; during the school's second week, applications meaningful to the Southeast Asian region were discussed.

The idea to hold this conference was conceived in the last quarter of 2014, during J.E. Lope's visit to Hidetoshi Tahara at Sophia University. The idea was again floated to Marian Roque and Patrizia Donato during the latter's visit to UP Diliman in early 2015; Patrizia eventually be-

came a member of the scientific committee. It was during this time that the date of the conference was finalized.

The choice of the location was mainly out of convenience - Cebu is directly connected to Tokyo, Osaka, Hong Kong, Singapore and many other cities in the region. The popularity of Cebu as a tourist destination was a welcomed bonus. As for the venue in Cebu, it was chosen upon consultation with UP Cebu's Lorna Almocera, who became part of the local organizing committee.

The conference thus became a natural follow through of the 2014 CIMPA Research School. Instead of the classroom setting of a school, the conference exposed young researchers to lectures by recognized experts in the field on their recent results. The organizers were (and still are!) hoping that this experience will inspire young mathematicians to continue doing research in differential equations.

Excursion to one of the smaller islands —Image used with permission.

The Organizers

The members of the Scientific Committee were Patrizia Donato (University of Rouen), Jose Ernie Lope (University of the Philippines Diliman), Hidetoshi Tahara (Sophia University) and Hideshi Tamane (Kwansei Gakuin University).

The members of the Organizing Committee were Lorna Almocera (University of the Philippines Cebu), Marian Roque (University of the Philippines Diliman) and Hiroshi Yamazawa (Shibaura Institute of Technology), with J.E. Lope as Chairperson.

The Organizing Committee was assisted by members of UP Diliman's Institute of Mathematics, namely Genesis John Borja, Bituin Cabbarubias, Paul Reine Kennett Dela Rosa, Aurelio de los Reyes V, Renier Mendoza, Mark Philip Ona, Johnatan Pimentel, Gaudelia Ruiz, Jasmin-Mae Santos, Riuji Sato, and May Anne Tirado. Some faculty members of UP Cebu and UP Los Baños also contributed in the preparations for the conference.

The Speakers

There were 31 paper presenters in the conference. Of these, 13 came from Japan, 10 from the Philippines, three from Italy, two from India and one each from France, USA and Iran. There were 25 males and six females.

Listed below, in alphabetical order of their last names, are the speakers, their affiliations and the titles of their presentations:

1. Dennis B. Bacani (Sophia University, Japan): Unique solvability of nonlinear Fuchsian partial differential equations
2. Bituin Cabarrubias (University of the Philippines Diliman, Philippines): On the existence, uniqueness and homogenization results for a quasilinear elliptic problem in a two-component domain with an imperfect interface
3. Randy L. Caga-anan (Mindanao State University-Iligan Institute of Technology, Philippines): On the unique solvability of certain nonlinear singular partial differential equations in the class of ultradifferentiable maps
4. Italo Capuzzo-Dolcetta (Sapienza - Università di Roma, Italy): The principal eigenvalue and the maximum principle for degenerate elliptic operators
5. Aurelio de los Reyes (University of the Philippines Diliman, Philippines): Regularization on the growth and migration of glioblastoma multiforme: approach using optimal control theory
6. Morteza Fotouhi (Sharif University of Technology, Iran): A semilinear PDE with free boundary
7. Daniella Giachetti (Sapienza - Università di Roma, Italy): Homogenization of elliptic problems singular at $u = 0$
8. Olivier Guibé (CNRS-Université de Rouen, France): Neumann problems for nonlinear elliptic equations with L^1 data
9. Yoshishige Haraoka (Kumamoto University, Japan): Three dimensional representations of braid groups associated with complex reflection groups
10. Kunio Ichinobe (Aichi University of Education, Japan): The divergent power series solutions of partial differential equations on the complex domain and its k-summability
11. Katsunori Iwasaki (Hokkaido University, Japan): Hypergeometric series with gamma product formula
12. Editha Jose (University of the Philippines Los Baños, Philippines): Asymptotic behavior of the optimal controls of a semilinear elliptic problem
13. Hironobu Kimura (Kumamoto University, Japan): Relation of semi-classical polynomials to the general Schlesinger systems
14. Renier Mendoza (University of the Philippines Diliman, Philippines): Existence and uniqueness of solution of a segmentation approach to the impedance tomography problem
15. Takeshi Morita (Osaka University, Japan): A connection formula of the generalized basic hypergeometric series
16. Daniel Onofrei (University of Houston, USA): Active manipulation fields
17. Toshio Oshima (Josai University, Japan): First order differential equations

18. Rhudaina Z. Mohammad (Western Mindanao State University, Philippines): A penalization method for an evolutionary free boundary problem with volume constraint
19. Gioconda Moscariello (Università degli Studi di Napoli Federico II, Italy): Continuity estimates for p-Laplace type equations
20. A.K. Nandakumaran (Indian Institute of Science, India): Composite structure with highly contrasting conductivities: homogenization of hyperbolic equation
21. Yasunori Okada (Chiba University, Japan): Coupling equations for partial differential equations of normal form
22. Mark Philip Ona (University of the Philippines Diliman, Philippines): Analytic solutions to a system of equations related to Ricci-flat Kähler metrics
23. Gilbert Peralta (University of the Philippines Baguio, Philippines): Hyperbolic systems with dynamic boundary conditions
24. Jonathan Pimentel (University of the Philippines Diliman, Philippines): Some existence results for a class of fractional differential equations and inclusions
25. Bidhan Chandra Sardar (Indian Institute of Science, India): Asymptotic analysis of an optimal control problem in an oscillating domain via unfolding operator
26. Riuji I. Sato (University of the Philippines Diliman, Philippines): On the well-posedness of the steady state Navier-Stokes equations for a suspension of rigid particles under slip boundary conditions
27. Hidetoshi Tahara (Sophia University, Japan): q-Analogues of Laplace and Borel transforms with application to q-difference equations
28. Mika Tanda (Kwansei Gakuin University, Japan): The relation between the hypergeometric function with a large parameter and WKB solutions
29. Mark Anthony Tolentino (Ateneo de Manila University, Philippines): On the lifespan of solutions to nonlinear Cauchy problems with small analytic data
30. Hideshi Yamane (Kwansei Gakuin University, Japan): Long-time asymptotics for the defocusing integrable discrete nonlinear Schrodinger equation)
31. Hiroshi Yamazawa (Shibaura Institute of Technology, Japan): Holomorphic and singular solutions of q-difference-differential equations of the Briot-Bouquet type

As can be seen from the titles of the talks, the range of topics in this conference is fairly broad — from the solvability of singular PDEs to homogenization problems and even discrete analogues of known results in differential equations. For this reason, the organizers requested all the speakers to devote a good amount of time to introduce their research problem before presenting their results. The PDF files of the presentations may be downloaded from the conference website: www.math.upd.edu.ph/pde2016.

Conference Participants

The conference had a total of 42 participants, 31 of whom were paper presenters. Of the forty two, 13 were from Japan, two each from India, France and Italy, one each from Iran, the USA, and the remaining 21 were from the host country. Of the 21 Filipino participants, most were from the capital; only six came from universities outside Metro Manila.

During one of the coffee breaks —Image used with permission.

Support for the Conference

The majority of the speakers and participants came with the support of their respective home institutions, and this made the organization of the conference relatively easier. The International Council for Industrial and Applied Mathematics (ICIAM) provided support in the amount of USD 3,500 for speakers and participants who could not get full support from their universities.

The Office of Institutional Linkages of the University of the Philippines System provided for the travel, board and lodging of the organizers. The PHP 200,000 from this office also paid for the conference dinner, the participants' kits and part of the excursion.

The organizers would also like to thank the Mathematical Society of the Philippines, for providing the amount necessary to book the hotel, and the UP Diliman's Institute of Mathematics, for providing various forms of support from the conception of this conference up to its completion.

Jose Ernie Lope obtained his doctorate from Sophia University and is now a Professor of Mathematics at the University of the Philippines Diliman. He has done research on partial differential equations in the complex domain, and has organized schools and conferences to promote interest in PDEs among Filipinos. He is also involved in the training of the Philippine Team to the International Mathematical Olympiad.

CENTRE INTERNATIONAL DE MATHÉMATIQUES PURES ET APPLIQUÉES

INTERNATIONAL CENTRE FOR PURE AND APPLIED MATHEMATICS

2018 CIMPA Research Schools call for projects

- Proposals in applied mathematics or related to applications of mathematics are especially welcome.
- The proposals for the most mathematically or economically deprived areas are encouraged and will be given priority.
- A project of a Research School should not coincide with one of a conference.
- We receive many projects. The selection by the Scientific Council and the Steering Council of CIMPA takes into account firstly the scientific value, but also thematic and regional balance. Read the road-map (cimpa.info/ecoles-de-recherche/feuille-de-route/article/roadmap) before filing a project. Anticipate that a project could be moved aside despite its significant qualities.

The aim of the International Centre for Pure and Applied Mathematics CIMPA is to promote international cooperation in higher education and research in mathematics and their interactions, as well as related subjects, for the benefit of developing countries. Our activities are concentrated at the places where mathematics emerges and develops, and where a research project is possible.

CIMPA is an UNESCO centre based in Nice, financed by France, Switzerland, Norway and Spain, including the support of the University of Nice Sophia-Antipolis and the University of Montpellier.

We organize research schools ranging in the length of two weeks in developing countries. The purpose of these schools is to contribute to the research training of the next generation of mathematicians, women and men.

The research schools are organized locally with the help of CIMPA. CIMPA's financial contribution is essentially for young mathematicians from neighbouring countries to be able to attend the research school. CIMPA can also help with obtaining funds from other sources. Additional and essential information can be found in the roadmap (available on the web site of CIMPA). You can also write to CIMPA for further information.

Research schools call for projects begins on March 1st, 2016.
The deadline for a (non-mandatory) pre-proposal is June 15, 2016.
The complete proposal is due October 1st, 2016.
The application form can be found on the CIMPA website: proposals.cimpa.info

Global change impact on diseases and alien species expansion

A capacity building workshop supported by

ICSU
International Council for Science

AIMS, Cape Town, May 2-6 2016

INTRODUCTION

This international, interdisciplinary, educational and capacity building workshop will bring together the two subjects of infectious diseases and invasive species and the context of climate change, thus allowing sharing the methods and building partnerships. The workshop will address the whole range of topics, from field-work and collecting of data to the building and validating of models, to the adjustment of models to take into account the changing environment and the social characteristics, and to the design and implementation of strategies to fight infectious diseases and invasive species. This will be done through lectures, practical training and round table discussions. Special emphasis will be put on African diseases and invasive species, as well as the characteristics of changing environment in Africa.

The workshop is mostly aimed to young researchers and postgraduate students, with a majority coming from Africa. International experts from around the world will give the mini-courses and lectures and will lead the working groups. There will be a limited number of contributed talks and a poster session.

GOALS OF THE CONFERENCE

The main objectives of the workshop are to network communities coming from different backgrounds (biology, mathematical sciences, medicine, social sciences and global environment change) and different parts of the world, and having an interest in the study and control of epidemic diseases and invasive species, and to contribute to the training of young researchers.

An important feature of the workshop is its location in Africa, which unfortunately, is the centre of several pandemic diseases threatening not only the economy and social cohesion of the continent but also seriously affecting other parts of the world. Thus, central to the workshop is the participation of this new generation of young African scientists from different backgrounds, including doctoral students and female scientists, to expose them to modern cutting edge scientific techniques and methods in the field, to put them in contact with world leading experts in different relevant fields, and have them taking part in the interdisciplinary discussions.

This workshop, the first activity bringing together IMU, IUBS, IUIS, IUMS, ICIAM, ISSC, ecoHEALTH Alliance (Future Earth), ICSU ROA, ISB and UNESCO has the important objective of building a lasting collaboration and enriching expertise in the different organizations.

MAIN THEMES

- *Epidemic diseases in the context of changing environment*
- *Invasive species in the context of changing environment*
- *Socio-economic adaptation to new epidemic diseases and invasive species*

APPLICATION

Website:http://www.aims.ac.za/en/research-centre/workshops-conferences/currentfuture/global-change-impact-on-diseases-and-alien-species-expansion

Applications: the website will be open for applications in October 2015. The workshop is planned for 50 participants. The participants from Africa will receive full funding.

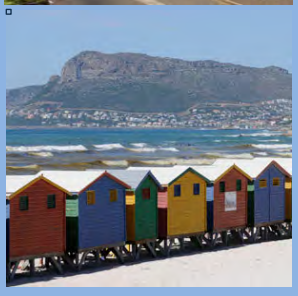
Scientific Committee

Pablo Fernandez de ArroyabeHernaez (Spain, ISB), JacekBanasiak (South Africa, AIMS), YuryDgebuadze (Russia, IUBS), Charles Ebikeme (ISSC), Jorge Kalil (Brazil, IUMS), Mark Lewis (Canada), Jean Lubuma (South Africa), Alberto Martinelli (Italy, ISSC), Mariagrazia Pizza (Italy, IUMS), Mario Primicerio (Italy, ICIAM), Daya Reddy (South Africa, ICSU), Christiane Rousseau (Canada, IMU)

Organizers
JacekBanasiak (South Africa) banasiak@ukn.ac.za
Christiane Rousseau (Canada) rousseac@dms.umontreal.ca

Confirmed speakers and leaders of working groups

- Peter Daszak (medicine and disease ecology), University of Columbia, USA
- Kristie Ebi (environmental health), University of Washington, USA
- Abba Gumel (mathematics),Arizona State University, USA
- John Hargrove (biomathematics, epidemiology, insect physiology), Center of Excellence in Epidemiological Modelling and Analysis (SACEMA), South Africa
- Mark Lewis (mathematics), University of Alberta, Canada
- Andrea Pugliese (mathematical and theoretical population biology), University of Trento, Italy
- Judith Omumbo (epidemiology), African Academy of Science
- David Richardson (botany and zoology), University of Stellenbosch and Director of Centre for Invasion Biology, South Africa



ISIAM's Silver Jubilee Celebration

by Barbara Lee Keyfitz

The ISIAM Silver Jubilee Conference took place in late January in Greater Noida, a modern 'Knowledge Park' about 50 km south of Delhi. Maria Esteban and I were invited to represent ICIAM, along with Alistair Fitt, who represented both ICIAM and industry-mathematics study groups. The speaker list featured a combination of international and Indian applied mathematicians. The full program of the conference, along with the list of speakers, can be found on the ISIAM website, at siam-india.in/wp/2015/10/01/isiam-siver-jubilee-conference/ What this article contributes is a personal reflection.

Courtesy of ISIAM —Image used with permission.

Although Greater Noida is a work-in-progress, a modern village with no resemblance to the exotic Asia of my youthful dreams, and far enough from the airport that taxi drivers were uncertain of directions (the maps on my cell phone came in handy), there were definite advantages to having a meeting in an isolated, somewhat academic, setting. Besides Sharda University, Gautam Buddha University is located nearby, and accommodations at various levels, from budget to luxury, were available. The organizers of the Jubilee, A.H. Siddiqi, Pammy Manchanda, Noore Zahra (and many others) had arranged for Maria, Alistair and I to stay at a very nice hotel, and we were shuttled around by a fleet of hired cars that served the international speakers. Overall, from the moment of our arrival until our departure, we were treated with outstanding hospitality, with all meals provided by the hotel or catered at Sharda University, and a fine banquet at another luxury hotel. And while the roster of attendees was modest in size, the conference was opened with great panache by a number of dignitaries, headed by the Honorable Shri Rajnath Singh, the Government of India Home Minister.

A significant component of the audience consisted of about 30 PhD students and postdocs who had arrived a week earlier for a Workshop on Variational Inequalities organized by Amiya K. Pani of IIT Mumbai as part of a countrywide initiative, the National Program on Differential Equations. This workshop was one in a series, which appears to be very robust, and which seems (at least to this casual observer) to be a very laudable effort to make advanced courses available to students outside the main centers. The program was, in fact, a short course on the topic of the title, with lecture series given by Pani, Mohan C. Joshi, T. Gudi, A.A. Khan, along with a scattering of talks given by other speakers. The program for this workshop was impressive, and the organizers had assembled a selection of bright, serious students who (as far as my limited knowledge of geography could discern) came from all over India. For the most part, they had not known each other before the workshop, and it was clear that they enjoyed meeting each other as much as they enjoyed the formal part of the program. This became particularly clear at a short dance and musical program performed by students at Sharda University, which graciously hosted the conference. The students, who had attended our lectures conscientiously, applauded politely, and had asked good questions, were unrestrained in their enthusiasm for the musical performers.

Courtesy of ISIAM —Image used with permission.

The conference succeeded in its goal of celebrating the 25th anniversary of ISIAM. Perhaps it is time for me to put aside the romantic images of an Asia, nurtured by the experiences of my childhood and the novels of Joseph Conrad, which no longer exists. From this memorable occasion, the image I will remember best is a student standing up to ask a question about Jpeg technology, cell phones, and frames. This way to the future.

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 Past-President of ICIAM.

ANNOUNCEMENT

MATHEMATICAL CONGRESS OF THE AMERICAS

JULY 24-28 **2017** MONTREAL

The Mathematical Council of the Americas, which federates the Mathematical Societies of the Americas, invites you to join us in Montreal for the 2017 Mathematical Congress of the Americas, from July 24th to July 28th 2017

PLENARY SPEAKERS

Shafira Goldwasser (MIT) • Andrew Granville (Université de Montréal)
Manuel del Pino (Universidad de Chile) • Peter Ozsvath (Princeton University) • Yuval Peres (Microsoft Seattle)

INVITED SPEAKERS

Nicolas Andruskiewitsch (Universidad Nacional de Córdoba) • Lia Bronsard (McMaster University)
Krzytof Burdzy (University of Washington) • Rustum Choksi (McGill University)
Maria Chudnovsky (Columbia University) • Juan Davila (Universidad de Chile)
Luz de Teresa (UNAM) • Yacov Eliashberg (Stanford) • Pablo Ferrari (Universidad de Buenos Aires)
Harald Helfgott (Université Paris Diderot) • Jeremy Kahn (Brown University)
Matt Kerr (Institute for Advanced Study) • C. Gustavo Moreira (IMPA) • Robert Morris (IMPA)
Paolo Piccione (Instituto de Matemática e Estatística da Universidade de São Paulo) • Jill Pipher (Brown University)
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Shmuel Weinberger (University of Chicago) • Dani Wise, McGill UniversitY

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Welington de Melo (IMPA) • Kumar Murty (University of Toronto) • Yuri Tschinkel (New York University)

There will be a large number of special sessions. Proposals to organise are being accepted until July 2016. For details, plus information on financial support of participants, please see the web page. https://mca2017.org/

About ICIAM

The International Council for Industrial and Applied Mathematics (ICIAM) is a worldwide organization 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.

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

The Full Members and their representatives
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CSCM (Chinese Society for Computational Mathematics): Xuejun Xu
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ECMI (European Consortium for Mathematics in Industry): Michael Günther
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