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This (northern hemisphere) summer edition of Dianoia contains ICIAM President Wil Schilders' report on the annual Board Meeting of ICIAM (now online in even-numbered years) and other ICIAM news, as well as news from the International Science Council, and an article on the African Institute for Mathematical Sciences (AIMS). There is a brief obituary for Rolf Jeltsch. Along with the ICIAM community, I mourn his passing. He was my predecessor and mentor as president of ICIAM, and had a profound influence in shaping the Council.

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ICIAM

From the President, Wil Schilders, July 2024

Dear ICIAM colleagues and friends,

The year 2024 is progressing, colleagues in the northern hemisphere are enjoying summer holidays whereas the southern hemisphere is looking forward to spring. July/August is often a quiet period, also for ICIAM. Nevertheless, this issue of *Dianoia* contains many interesting articles, but also some sad news. On June 28, 2024, Rolf Jeltsch passed away in the age of 78. Rolf was president of ICIAM from 2007 till 2011. An obituary is contained in this issue of ‘’Dianoia’’, and a more extensive obituary will be published by the European Mathematical Society of which Rolf was the president from 1999 till 2002.

Good news as well: our secretary, Suzanne Shontz, was named the 2024 winner of the James Corones Award in Leadership, Community Building and Communication from the Krell Institute. The award will be presented later this year at the KU Lawrence campus; a short article can be found in this issue of *Dianoia*.

An important event was the ICIAM Board meeting on June 17, which was held online as decided in last year’s Board meeting: from now on, Board meetings in even years will be held online. The online character put quite some pressure on the agenda and the timing, and also implied that long discussions were not possible. The latter means that important discussions had to be postponed till next year’s Board meeting, which will be an in-person event in Hanoi, Vietnam (as has been decided by voting) on September 13, 2025, preceded as usual by a workshop on September 11-12. The online meeting was very well attended, and one of the major results of the meeting was the election of two new officers-at-large: we welcome José Carillo (Oxford) and Weizhu Bao (Singapore), completing the step towards six officers-at-large, besides the president, past president, secretary and treasurer. It means a considerable additional workforce to carry out tasks for the benefit of ICIAM, its member societies and for industrial and applied mathematics in general.

Another important item in the Board meeting was the presentation of the pre-bids for the ICIAM 2031 Congress. It was decided that all three pre-bids were excellent, and will advance to the next round, the site visits by the officers. In next year’s in-person Board meeting, it will be decided which of the three pre-bids will be invited to organize the 2031 Congress: Busan (Korea), Boston (USA) or Brisbane (Australia)….by sheer coincidence all starting with the letter B!

There are quite some conferences and workshops organised by our member societies, and it would be great if your society can inform us about such workshops that we can then place on our website. Showing activity in the field of industrial and applied mathematics is extremely important, and the officers will definitely work on this visibility. One conference I would like to mention here is the conference on industrial and applied mathematics that will be held in Cape Town, September 30 till October 5. The organisers are very busy organising this event, and are planning to officially launch an African organisation for industrial and applied mathematics during this event. Hence, I would like to ask all of you to consider attending this important event for African mathematics. More information can be found on the webpage https://aciam.co (https://aciam.co/).

At the end of May, I attended the annual Abel prize ceremony in Oslo. This year's winner, Michel Talagrand, received the Abel prize from crown prince Haakon of Norway, and many mathematicians were present to celebrate this very special occasion. You can read more on the official web page of the Abel prize, https://abelprize.no/ (https://abelprize.no/). It is really great that the Norwegian Parliament (The Storting) has installed this ''Nobelprize for mathematics'' in 2002, on the occasion of the 200th anniversary of Abel's birth.

Together with the IMU, we are preparing a joint statement on citations farms, papermills, citation indices and related items. The reason for doing this is that the organisation Clarivate, which annually published a list of highly cited researchers (top 2%), has eliminated mathematicians in their 2023 list, and will probably do so also in the future, as there are strong suspicions of fraudulent behaviour. The statement will be published after the summer.

Finally, I would like to draw your attention to an important election that will take place during the next Board meeting in Hanoi, namely the election of the president-elect. Later this year we will announce how to nominate candidates, but in view of the importance of this position I hope you will all start thinking about suitable candidates from your societies.

I sincerely hope we can continue to count on your support in all of ICIAM's activities. Don't hesitate to share your opinions, ideas or suggestions with us. We can learn a lot from each other, and being together will make mathematics, especially in applications and industry, much stronger and more visible. This is our joint mission!

Wil Schilders, president

Wil Schilders

ICIAM President Wil Schilders is emeritus professor, Eindhoven University of Technology and director of the Dutch Platform for Mathematics. Previously he worked at Philips Research and NXP Semiconductors. He was founder and President of EU-MATHS-IN.

ICIAM Reminders: July 2024

Members are reminded to update their Society's information.

ICIAM maintains a self-service membership directory (http://www.iciam.org/members). Please take this opportunity to check your membership information, and update it if appropriate.

Instructions on how to update your entry or to add new information can be found in our membership FAQ (http://www.iciam.org/faq-members). Note that updates can only be done by a person designated as the "Editor" for that society. If you do not have that information, then send e-mail to the ICIAM Secretary (mailto:secretary@iciam.org) (secretary@iciam.org (mailto:secretary@iciam.org)) to name a new editor.

Here's a reminder that you can download a PDF file of any issue of ICIAM Dianoia (as long as the ICIAM Dianoia editor has remembered to set it up). Clicking on the "Downloads" button at the top of the browser view of the newsletter will bring up a screen that offers you a choice of A4 or US Letter to fit your printer.

Obituary: Rolf Jeltsch

ICIAM is sad to announce the death of Prof. Dr. Rolf Jeltsch its 7th president (2007-2011) on June 28, 2024 at the age of 78. Rolf Jeltsch retired from ETH Zurich in 2011 where he had been full professor of mathematics since 1989, head of the Math Department and also where he completed his doctorate in mathematics in 1972. A postdoctoral fellowship in Canada was followed by positions as an assistant professor in the USA (University of California Los Angeles and University of Kentucky) before moving to the Ruhr University Bochum in 1976 as a lecturer and later as a scientific advisor and professor. After research stays in Stanford and Helsinki, RWTH Aachen appointed him full professor in 1979 and director of the Institute for Geometry and Practical Mathematics.

Rolf Jeltsch's research area was numerical analysis (from theoretical investigations to engineering applications), parallel computing and computational sciences. Some special fields of interest were numerics of hyperbolic conservation laws with applications to the Euler equations of gas dynamics, compressible Navier-Stokes including Large Eddy Simulation (LES) and chemistry, shallow water equations,

magnetohydrodynamical equations (MHD). His research included large scale computational and engineering problems such as simulation of accelerator beams, climate modeling, optimizing three dimensional turbine blades, modeling circuit breakers, two and three phase flow in porous media.

Rolf Jeltsch was nationally and internationally recognized and was accordingly a member of many different boards and mathematics committees that benefited from his tireless commitment and enthusiasm. He was president of the Leonard Euler Center, the Swiss pilot center of the European Community on Flow Turbulence and Combustion, the European Mathematical Society, the Swiss Mathematical Society and the International Council on Industrial and Applied Mathematics, as well as president (2005-2007) and vice president (2008-2010) of the Society for Applied Mathematics and Mechanics (GAMM). He chaired the Scientific Council of the Stefan Banach Center in Warsaw, was director of the ICIAM Congress in Zurich, and worked as a consultant for various research institutes in Europe.

Rolf is survived by his wife Marianne Grauer and his children: Veronika, Rita, Urs and Claudia.

(From an ETH Obituary)

(Photograph of Rolf Jeltsch courtesy of the European Mathematical Society)

Jose A. Cuminato and Siddhartha Mishra

Maria J. Esteban Is Elected to the Nominations and Elections Committee of the ISC

Under its new governance structure, the International Science Council has a Nominations and Elections Committee, comprising 11 members, that recruits candidates to serve on the ISC Governing Board. This committee itself was selected by the current Governing Board from nominations by ISC member societies, and then voted on by the members.

ICIAM is pleased to announce that Maria J. Esteban, whose nomination was put forward by ICIAM and the IMU and supported by the IUPAP (Physicists) and the IUPAC (Chemists), has been elected to this important committee.

Maria is a senior researcher emerita at CNRS; she is a former President of ICIAM and currently chairs ICIAM's ISC Committee. She is also a Fellow of ISC, as well as a former President of SMAI and has served on many advisory boards both in Europe and worldwide. Her research area is analysis and partial differential equations.

Amazingly, there are two mathematicians on this small committee, as Cheryl Praeger is also a member. For a complete list of the committee members and a description of the committee's work, see this section (https://council.science/about-us/governance/committees/elections-committee/) of the ISC website.

The ICIAM Officers

Suzanne Shontz Wins National Leadership Award

University of Kansas Associate Dean Suzanne Shontz will receive the 2024 James Corones Award in Leadership, Community Building and Communication, the Krell Institute announced today.

Suzanne Shontz is the ICIAM Secretary.

The award (https://www.krellinst.org/about-krell/corones-award) is named for the Iowa-based educational nonprofit's founder, who died in 2017, and recognizes mid-career scientists and engineers for their research impact, mentoring, scientific-community activities and their commitment to communicating science and technology. The award will be presented later this year on the recipient's campus in Lawrence, Kansas.

A committee of Krell Institute collaborators and staff recognized Shontz "for her mentoring and leadership on the campuses she's served and in the broader research community." The committee also cited "her hands-on efforts to help budding scientists develop a wide range of communications skills, from workshops on poster preparation to scientific writing. What's more, Associate Dean Shontz has been active early in the STEM pipeline, having organized summer camps for middle and high school students."

Krell President Shelly Olsan noted Shontz's "exceptional academic career and her leadership in professional activities that clearly highlight her dedication to her field. Dr. Shontz's efforts teaching the next generation of scientists to communicate their work to broader communities have a clear relationship to this award and its founder."

Shontz serves as associate dean for research and graduate programs in KU's School of Engineering and is a professor in KU's Department of Electrical Engineering and Computer Science. She directs the computational bioengineering track in the school's

Bioengineering Program and the Mathematical Methods in Interdisciplinary Computing Center at KU's Information Sciences Institute. She is also affiliated with the Department of Mechanical Engineering.

Before joining KU in August 2014, she was on the faculty at Mississippi State and Pennsylvania State universities and previously was a postdoctoral research scholar at the University of Minnesota's Minnesota Supercomputing Institute. In 2011, she was named an NSF Presidential Early Career for Scientists and Engineers (PECASE) Award recipient.

Shontz received her Ph.D. in applied mathematics from Cornell University in 2005 after earning a B.A. in mathematics and B.S. in chemistry from the University of Northern Iowa in 1999 and her M.S. degrees in computer science and applied mathematics from Cornell University in 2002. For more, visit her KU website. (https://people.eecs.ku.edu/~s906s230/)

Corones (https://www.krellinst.org/about-krell/our-history/founder), a renowned researcher and administrator, led Krell from its start in 1997 until shortly before his death, building an organization known best for the prestigious scientific workforce-training programs it manages: the DOE Computational Science Graduate Fellowship, supported by the DOE Office of Science, and the DOE National Nuclear Security Administration-sponsored Stewardship Science and Laboratory Residency graduate fellowships. Before founding Krell, Corones was at the DOE's Ames National Laboratory, managed by Iowa State University, where he also was a professor. He held numerous lab posts from 1978 to 1997, including program director for applied mathematical sciences, program director for environmental technology development, deputy director and acting director.

The Krell Institute (https://www.krellinst.org) supports technology-based education and information programs with technical assistance, management expertise and communications products, and collaborates with agencies and institutions to foster the nation's competitive advantage in science and engineering.

Press Release

ISC's Global Knowledge Dialogue for Latin America and the Caribbean

The International Science Council (ISC) organized a **Global Knowledge Dialogue for Latin America and the Caribbean** (GKD-LAC) in Santiago de Chile on April 9-11. Héctor Ramírez (HR), professor at the University of Chile and director of the *Centro de Modelamiento Matematico,* and who participated in the last ICIAM Board meeting as representative of SMAIS-Chile, attended the GKD-LAC on behalf of ICIAM.

It was a high-level meeting that allowed to review the reality of Latin America and the Caribbean, explore its opportunities and challenges, and create new relationships between the participants (networking), who came from the most varied countries and institutions in the region.

The event itself was preceded by the organization of discussion panels that were held in parallel, one where the challenges of young researchers were discussed and another one on freedom and responsibility in science. HR actively participated in the latter. There was a broad agreement that the main concern for scientists in the region is the lack of resources to do science, a situation which is already disparate among the countries of the region. This is because talents have difficulty to emerge. However, other problems that plague the scientists in LAC were also detected: lack of access to data, often due to institutional issues or lack of order and clarity in the source of that data; lack of determination and clarity to address complex global problems that must have a local and regional perspective, mentioning two as examples: climate change and gender gap in science; and, finally, the instability of scientific policies in the region's countries, where often the allocation of resources and plans are strongly affected by political changes in governments. It was also believed that the above could be addressed through regional collaborative programs where both the knowledge generated in each country regarding the creation and monitoring of policies, as well as good local practices, would be shared.

Also, aim to generate standards that in turn would allow stability of the scientific policy of the region. The above identified directions could be strongly supported by ISC, promoting regional agreements at the LAC level, always highlighting the relevance of the policies for the country and the region. The first day closed with a cocktail, an excellent opportunity for networking, where the Society of Women for Science in Developing Countries (OWSD) also showed videos with stories of women scientists.

The event itself was opened by Chilean authorities, including the Chilean Minister of Science and Technology, and the active participation of science academies in the region, as well as other organizations with regional presence. Then, there was a good opportunity to get to know the ISC through a presentation of its CEO. Later, the day was completed with forums on science and diplomacy, and on the difficulties of science in the region, in particular the threat to its autonomy, a necessary condition to develop high-level science. This day continued with an enriching discussion about the future of evaluations and publications in the context of open science, and closed with a dinner organized by *Frontiers Planet Prize*.

About the Author

Héctor Ramírez is full professor in the Department of Mathematical Engineering at Universidad de Chile and the Director of the Center for Mathematical Modeling (www.cmm.uchile.cl (http://www.cmm.uchile.cl/)). He obtained his degree in Mathematical Engineering from Universidad de Chile in 2002 and his PhD in Applied Mathematics from École Polytechnique (France) in 2005. His research focuses on continuous optimization theory, particularly on the stability analysis of conic programming, and on the applications of optimal control, optimization and IA techniques in health management related problems. His work has been recognized with several awards, including the Charles Broyden Prize in 2010.

Héctor has delivered keynote talks at numerous institutions and conferences and has served on the program committees of several international conferences dedicated to optimization, digital health, and other related fields. Since 2017, he has been the Chief Editor of the Continuous Optimization area of the journal Operations Research Letters

and serves as associate editor in many optimization and engineering journals. Additionally, he regularly serves on divers Chilean advisory councils and has led numerous R&D projects with industry and the public sector.

URL: http://www.dim.uchile.cl/~hramirez/ (http://www.dim.uchile.cl/~hramirez/)

Héctor Ramírez

The International Science Council Position on Academic Boycotts

The ISC has updated its position (https://council.science/statements/isc-renews-position-academic-boycotts-role-of-universities/) on academic boycotts and released a comprehensive statement on the role of universities in fostering responsible discussion and rational debate in times of crises.

You can find the Statement (https://council.science/wp-content/uploads/2024/07/ISC-Statement-on-Role-of-Universities_11-July-2024.pdf) and the Advisory (https://council.science/wp-content/uploads/2024/07/ISC-Statement-on-Academic-Boycotts_11-July-2024.pdf) here.

African Institute for Mathematical Sciences (AIMS)

The African Institute for Mathematical Sciences (AIMS) is a pan-African network of centres of excellence, strategically positioned to contribute to scientific and technological advancement through education, research and innovation. Its mission is to cultivate Africa's talented youth into creative leaders of science and technology. AIMS selects the brightest young minds across Africa, shaping them into independent thinkers and problem solvers with the capacity to innovate, ultimately steering Africa toward economic prosperity. Positioned at the heart of the innovation and transformation ecosystem, AIMS offers a comprehensive array of academic and non-academic programs meticulously designed to provide learners with a distinctive postgraduate training experience.

This article, a brief introduction to AIMS, was published in the European Mathematical Society's EMS Magazine No. 32, June 2024. Reprinted by permission.

A glimpse into AIMS

As the first and largest network for postgraduate training in mathematical sciences across Africa, AIMS assumes a pivotal role in sculpting a prosperous Africa, driven by innovative education through its five training centres in South Africa, Senegal, Ghana, Cameroon, and Rwanda, complemented by a research and innovation centre in Rwanda. Since its establishment in 2003, AIMS has evolved into the STEM secretariat for Africa, with over 200 partners, more than 250 researchers, and over 500 world-class lecturers. This pivotal role extends beyond borders, as AIMS actively collaborates with academic institutions, research organizations, and industry partners on a global scale. These collaborative efforts serve as conduits for knowledge exchange, resource sharing, and the seamless integration of African scientists into the broader global scientific community.

AIMS offers a comprehensive array of full-time programmes, including a one-year Structured Master's in Mathematical Sciences, an 18-month Co-operative Education, a Master's in Mathematical Sciences for Teachers (MMST) programme, and PhD programmes in subjects including data science. The master's programmes commence at the end of August and follow a three-semester academic structure, aligning with the distinct phases of skills development, review, and research. The skills and review phases are organized into three-week blocks of courses, with the skills phase comprising three mandatory blocks designed to equip students with essential computational and mathematical problem-solving skills. The subsequent review phase encompasses six blocks, requiring students to successfully complete a minimum of eleven courses, a maximum of two per block. This structured approach ensures a robust and thorough preparation for students to maximize their learning experience throughout the programme.

AIMS graduates an average of 300 master's students every year, with the skills needed to pursue successful careers as university lecturers, research scientists, financial analysts, public health advisors, entrepreneurs, and data scientists among others. By August 2023, AIMS master's alumni constituted a vibrant community of 3177 youth, 34.6% of whom are women. AIMS alumni have demonstrated remarkable employability globally, spanning the private, public, and academic sectors. As of December 2022, the transition rate into employment and further studies stood at an impressive 88%, with African Master's in Machine Intelligence (AMMI) graduates leading with the highest transition to employment at 81%, followed by Co-op Master's at 74%, and Structured Master's at 59%.

The majority of employed AIMS alumni (78%) choose to contribute their skills and expertise within Africa. Their impact is significant across various fields, with tertiary education (such as university lecturers), research (in academic institutions and both public and private sectors), and information and communications technology (ICT) emerging as the top three areas of employment. Diving deeper into their contributions, AIMS alumni are actively engaged in fields crucial for Africa's development, including climate sciences, epidemiology, and data science – machine learning – AI. Furthermore, their influence extends beyond immediate employment, as they play pivotal roles in advancing STEM education and research. This includes roles as secondary school teachers, university lecturers, and researchers, both within Africa and on a broader international scale. The impact of AIMS alumni resonates not only in their individual success stories but also in their collective efforts towards the progress of STEM fields and education.

Many alumni choose to continue their studies post-AIMS and pursue a research master's

degree or a PhD, the majority of whom receive competitive full scholarships. A total of 35% of AIMS alumni are pursuing further studies, of which 80% are pursuing a PhD and 20% are pursuing a research master's degree. The top fields of study are mathematics, physics, health, and finance. Of all the alumni who have completed or are pursuing a PhD, 50% of them were accepted directly from the AIMS master's programme, thereby reflecting the calibre and rigour of the AIMS program.

In March 2024, AIMS celebrated 20 years of impact under the theme *Siyakhula: Growing Mathematics in Africa*. The festival brought together all mathematicians, including representatives from universities, research institutions, governments, the private sector, civil society organizations, and the general public.

AIMS centres

AIMS South Africa

AIMS South Africa (https://aims.ac.za) was established in 2003, in Cape Town, as the first centre born out of a partnership among six universities: Cambridge, Cape Town, Oxford, Paris-Sud XI, Stellenbosch, and Western Cape. The centre collaborates with local universities to integrate specialized courses into regular honours and master's programmes, fostering innovation through research. In 2008, the AIMS South Africa Research Centre was launched to contribute to advancing African science and academia within a rich multicultural context.

Areas of specialization include cosmology and astrophysics, mathematical and physical biosciences, mathematical finance, foundations of mathematics and scientific computing, and data science and information systems. In September 2023, AIMS South Africa launched the AI for Science Master's programme (https://ai.aims.ac.za), in partnership with Google DeepMind. The centre also empowers teachers across Africa through AIMSSEC (https://www.aimssec.ac.za), amplifying the pipeline of maths and science students through training programs. In alignment with its commitment to showcasing the transformative power of maths and science, AIMS South Africa initiated the *House of Science* public engagement program which capacitates teachers, elevates public science literacy, and propels mathematics and scientific communication throughout South Africa.

AIMS Senegal

In 2011, with support from the Government of Senegal, AIMS Senegal (https://aims-senegal.org/our-story) became the second centre within the AIMS Network, with a master's programme accredited by the National Authority for Quality Assurance in Higher Education (ANAQ-Sup), Senegal. Since its inception, AIMS Senegal has graduated students through three distinctive pathways: a structured 10-month master's programme, an 18-month Co-operative Education programme (more than 80% of students following this programme find jobs within the 6 months after graduation), and the African Master's in Machine Intelligence (AMMI (https://aimsammi.org)) programme, which delves into the realm of machine intelligence, catering to the evolving demands of the digital era.

In 2013, the AIMS Senegal Research Centre was established with the appointment of Prof. Mouhamed Moustapha Fall (a member of the Scientific board of EMS-CDC) as the German Research Chair. AIMS Senegal researchers have won international mathematics prizes like the Ibni Prize, the Abbas Bahri excellence fellowship of Rutgers University, and the DST-ICTP-IMU Ramanujan prize, in geometric analysis, stochastic PDEs, and biomathematics.

AIMS Ghana

Established in 2012 with the Government of Ghana's support, AIMS Ghana (https://aims.edu.gh) is recognized as a UNESCO Category II Centre of Excellence and is accredited by the National Accreditation Board (Ghana). Its programmes include a structured 10-month master's programme and a specialized master's programme for maths teachers (MMST (https://aims.edu.gh/aims-master-of-mathematical-sciences-for-teachers-mmst)). The centre also runs a Girls in Mathematical Sciences programme (GMSP (https://aims.edu.gh/girls-in-mathematical-sciences-programme)) a fully-funded 9-month initiative for bright female Senior High School students which mentors participants for STEM careers at the highest levels in research, training, and industry, cultivating a new class of leaders in research and innovation.

The AIMS Ghana Research Centre opened in 2014 with a focus on quantitative biology and epidemiology. In 2016, a German research chair “Mathematics and its applications” was also recruited. The centre’s research focuses on stochastic analysis and applications, singular stochastic differential equations, optimal control, controllability, integro-differential equations, game theory, dynamic programming, climate change, and quantum algebra.

AIMS Cameroon

Located in Limbe, AIMS Cameroon (https://aims-cameroon.org) was established in 2013 with the support of the Government of Cameroon, as the fourth centre. AIMS Cameroon has a structured 10-month programme and an 18-month Co-operative (Co-op) Education programme with a direct link to industry through work placements, a Teacher Training Program (TTP (https://aims-cameroon.org/teacher-training-program-2)) designed to improve learning outcomes in mathematics for secondary school students, and a research centre.

The AIMS Cameroon Research Centre, started in 2017, is supported by Alexander von Humboldt Foundation, DAAD, and the German Federal Ministry of Education and Research, with research areas like mathematical analysis, nonlinear analysis, climate sciences, shape optimization, control theory, deep learning, and big data, which address real-world challenges such as environmental pollution and urban networks.

AIMS Rwanda

Established in 2016 with the support of the Government of Rwanda, AIMS Rwanda (https://aims.ac.rw) is the fifth centre of the AIMS Network. The centre offers a structured 10-month master’s programme, along with an 18-month Co-operative (Co-op) Education programme with industrial attachment in various fields including data sciences and malaria modelling, and a training programme in mathematics and sciences for high school teachers in Rwanda.

The centre, in collaboration with Rwandan government institutions, provides short courses leading to certificates for professionals in several fields of interest, including climate sciences, big data analytics and software testing. The AIMS Rwanda Research Centre has two research chairs who work with postdoctoral fellows and PhD candidates in mathematical optimization, data-driven and machine learning applications, discrete mathematics and theoretical computer science.

AIMS Research and Innovation Centre

The AIMS Research and Innovation Centre (AIMS RIC (https://research.nexteinstein.org))14 is the youngest centre in the AIMS ecosystem, established in 2023. The centre is home to Quantum Leap Africa (QLA) which seeks to pre- pare Africa for the coming quantum revolution. Research focuses on data science (including machine learning and AI), quantum science, and mathematical modelling, with team members com- prising research chairs, resident researchers, postdoctoral fellows, PhD and MPhil students, and interns.

The centre is positioned to respond to current and emerging challenges such as pandemics, climate change, and food insec- urity. For example, the centre's president, Prof. Wilfred Ndifon, worked with the Rwanda Biomedical Centre (RBC) to lead a team that developed a COVID-19 pool testing method which was successfully used in Rwanda and beyond to track people infected with the SARS-CoV-2 virus. AIMS RIC operates a doctoral training centre currently providing training in data science and malaria modelling.

Other programmes

AIMS Industry Initiative

The AIMS Industry Initiative (https://nexteinstein.org/industry-initiative) builds and leverages industry partnerships to identify win-win opportunities for AIMS students and alumni as well as industry partners. These include short-term work placements, internships and employment. AIMS works with organizations to fill top vacancies with proven talent, selected from a

base of AIMS graduates and students with world-class training in mathematical sciences and applied research, in addition to other technical and life skills necessary to succeed in performance-driven organizations.

Impact and alumni success

AIMS has made a significant impact in producing a new generation of African scientists and researchers. Its alumni have gone on to pursue successful careers in academia, research, industry, and policymaking, contributing to the advancement of science and technology in Africa. Some success stories can be found on individual centre websites or on the AIMS blog (https://nexteinstein.org/meet-our-alumni) under the #AlumoftheWeek series.

Conclusion

This article aims to inspire mathematicians across Africa by highlighting the transformative impact of AIMS on the continent's mathematical landscape. With a focus on nurturing experiments, stimulating conjectures, and establishing standards for exploring new mathematical frontiers, AIMS provides an inviting environment for mathematicians to actively engage in exploration and experimentation. Beyond being an institution, AIMS serves as a catalyst for mathematicians to embark on journeys of discovery, pushing the boundaries of knowledge and venturing into unexplored territories. This article extends an invitation to mathematicians to join the vibrant community cultivated by AIMS, contributing to the ongoing narrative of growth, exploration, and advancement in mathematics throughout Africa.

For more information about AIMS, please visit the AIMS website (https://nexteinstein.org).

About the author

Winnie Nakiyingi is the Research and Academic Coordinator at the AIMS Research and Innovations Centre (AIMS RIC) in Kigali, Rwanda. She also doubles as the head of communications at AIMS RIC. Winnie has held various positions at AIMS, since 2012, when she joined AIMS Ghana as one of the pioneering students. She is also passionate about science diplomacy and empowering African women and girls in science, technology, engineering, and mathematics (STEM) through her organization Words That Count (https://wordsthatcount.org).18 Her career reflects a blend of statistical expertise, academic and policy dedication, and a commitment to promoting diversity in science.

wnakiyingi@aimsric.org (mailto:wnakiyingi@aimsric.org)

Winnie Nakiyingi

Winnie Nakiyingi is the Research and Academic Coordinator at the AIMS Research and Innovations Centre (AIMS RIC) in Rwanda. She is passionate about Statistics, Science Diplomacy, and empowering African women and girls in STEM.

Joint meeting of the NZMS, AustMS and AMS

There will be a joint meeting of three mathematical societies: The American Mathematical Society, the Australian Mathematical Society and the New Zealand Mathematical Society at the University of Auckland, December 9-13, 2024.

For more information, see the conference website (https://ms-meet-2024.blogs.auckland.ac.nz)

José Alberto Cuminato Will Become Dianoia Editor-in-Chief in 2025

Long-time readers of *ICIAM Dianoia* will recall that the newsletter started in January 2013 as a PDF document mailed to subscribers. Sean Bohun was the managing editor, and we worked hard to produce elegant covers and nicely formatted articles. We recruited a small editorial committee to generate articles and help with decisions. Choosing the cover

illustration and selecting the precise depth of color so that we could print the table of contents on top of it was always a matter of intense discussion between Sean and myself. A reproduction of the original front cover is at the end of this article.

With the October 2024 issue, I will say goodbye to my role as editor-in-chief, as Dianoia welcomes a new editor and editorial team, who take over in January 2025. The new editor needs no introduction to many in the ICIAM community, as he served as Treasurer of ICIAM for almost a decade. I am delighted that he is taking charge of one of my favorite ICIAM activities; here is a little bit about him.

José Alberto Cuminato, also known as Poti, is a professor of numerical analysis at the Institute of Mathematical and Computing Sciences (ICMC) at the University of São Paulo (USP) in São Carlos, Brazil. He holds a degree in Mathematics from the Universidade Estadual Paulista (1977), a Master's degree in Mathematics from USP (1981), an M Sc in Numerical Analysis from Oxford University Computing Laboratory (1983), and a Ph D in Numerical Analysis also from Oxford University Computing Laboratory (1987). He was the director of ICMC-USP in the period 2006-2010, president of the Brazilian Society of Applied and Computational Mathematics for two terms, 2005-2007 and 2007-2009, Treasurer of ICIAM 2010-2019, Member of the Council of Brazilian Society of Mathematics, in the Biennium 2016-2018, foreign corresponding member of the Royal Society of Edinburgh (2012) (FRSE) and the Brazilian Academy of Sciences (2014). The work area is in Mathematics, emphasizing Numerical Analysis, mainly on the following topics: Simulation of incompressible flows and flows with free surfaces, finite difference methods, numerical methods for ordinary and partial differential equations, Fredholm and Cauchy integral equations, and numerical linear algebra.

Poti and a team of journalists (who I will introduce in October) takes over a publication that, though informal, now has some history. The first six volumes, for the years 2013 through 2018, continued in PDF format, with Sean typesetting each issue, essentially by hand. In the lead-up to ICIAM Congresses we tried to feature the congress site on the covers. Our final PDF issue featured a street scene from Valencia, the site of the upcoming ICIAM 2019 Congress. The back cover of that issue is reproduced below.

Beginning in 2019, the format of *Dianoia* changed. By then ICIAM had retained the services of a part-time webmaster, Rob Carr, who designed the online interface that we use today. It has served us well. Every quarter, in January, April, July and

October, subscribers receive an e-mail with what amounts to a table of contents. Clicking on the title of an article takes you to the full text.

More and more, *Dianoia* serves the ICIAM community in two ways. The essential purpose of the newsletter is to convey information about the operation of ICIAM to ICIAM's members. More accurately, since ICIAM's members are societies, the newsletter informs the members of ICIAM's member societies. Before *Dianoia* existed, people learned about what was happening from occasional e-mails sent by the President or Secretary, when they happened to remember to write something. Now there is a regular channel of communication.

Dianoia serves a second purpose as well: to feature articles that may not be directly about the workings of ICIAM or the events of the ICIAM Congresses, but that have impact on the world of industrial and applied mathematics. The *International Science Council*, of which ICIAM is a member, has become active in advancing science around the world, and in every issue there are reports of its activities. The Editorial Committee solicits articles on the activities of member societies, and on prizes and achievements related to our discipline. One of the reasons that the current Editorial Committee is so delighted to welcome Poti to the leadership of the newsletter is that it is time for new perspectives.

I am looking forward to seeing how *Dianoia* will evolve.

Below: The front cover of the first issue of Volume 1

Editorial Team

Managing Editor

C. Sean Bohun
University of Ontario Institute of Technology
Faculty of Science
2000 Simcoe St. North
Oshawa, ON, Canada
e-mail: sean.bohun@uoit.ca

Reporters

James M. Crowley
SIAM
3600 Market St., 6th Floor
Philadelphia PA, 19104-2688
e-mail: jcrowley@siam.org

Iain Duff
STFC Rutherford Appleton Laboratory
Harwell Oxford
Didcot, OX11 OQX, UK
e-mail: iain.duff@stfc.ac.uk

Maria J. Esteban
CEREMADE
Place du Maréchal
Lattre de Tassigny
F-75775 Paris Cedex 16, France
e-mail: resteban@ceremade.dauphine.fr

Eunok Jung
Konkuk University
Department of Mathematics
1, Hwayang-dong, Gwangjin-gu
Seoul, South Korea
e-mail: junge@konkuk.ac.kr

Roberto Natalini
Istituto per le Applicazioni del Calcolo
Dip. di Matematica, Università di Roma
Via della Ricerca Scientifica 1; I-00133 Roma, Italy
e-mail: roberto.natalini@cnr.it

Alexander Ostermann
University of Innsbruck
Numerical Analysis Group
Department of Mathematics
Technikerstraße 13/7
6020 Innsbruck, Austria
e-mail: alexander.ostermann@uibk.ac.at

ICIAM Officers

President

Barbara Lee Keyfitz
The Ohio State University
Department of Mathematics
231 West 18th Avenue
Columbus, OH 43210-1174
e-mail: bkeyfitz@math.ohio-state.edu

Past-President

Rolf Jeltsch
ETH Zürich, Seminar for Applied Mathematics
CH-8092 Zürich, Switzerland
e-mail: jeltsch@sam.math.ethz.ch

Secretary

Alistair Fitt
Oxford Brookes University
Headington Campus
Gipsy Lane
Oxford, OX3 0BP, UK
e-mail: afitt@brookes.ac.uk

Treasurer

José A Cuminato
University of Sao Paulo at Sao Carlos
Department of Applied Mathematics and Statistics
P.O. Box 668
13560-970 Sao Carlos - SP
Brazil
e-mail: jacumina@icmc.usp.br

Officer-at-Large

Taketomo Mitsui
Doshisha University
Faculty of Science and Engineering
1-3 Tatara Miyakodani, Kyotanabe City, 610-0394
Japan
e-mail: tamitsui@mail.doshisha.ac.jp

Mario Primicerio
Università degli Studi di Firenze
Dipartimento di Matematica
Viale Morgagni 67/A, 50134 Firenze, Italy
e-mail: primicer@math.unifi.it

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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.
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Below: The back cover of the final issue of Volume 6.

Barbara Lee Keyfitz

Barbara Lee Keyfitz is Emeritus Professor of Mathematics at The Ohio State University. She has a PhD from New York University, and works in partial differential equations. She is a former President of ICIAM, and Editor-in-Chief of ICIAM Dianoia.

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