

ISAAC – Newsletter July

Message of the President

Dear ISAAC members,

We are again coming near an ISAAC congress. This edition will be in Astana, Kazakhstan, from July 21–25. It will be the first time our ISAAC congress is held in Central Asia. Therefore, you will see many new faces and, hopefully, find new friends and collaborators. Furthermore, it also reflects the steady growth of our community.

But not everything is about growth. It is wonderful to see that our differential equations community in Italy continues the tradition of organizing late summer conferences. The conference "Perspectives in Partial Differential Equations", to be held on September 9–10, 2025, at the University of Basilicata, Matera, Italy, will count with two former ISAAC presidents as invited speakers.

Following our close collaboration with the ICMAM community, we now have the opportunity for interested ISAAC members to join them free of charge.

Also, to further strengthen our community working in fractional calculus, we have decided to support the ICFDA (International Conference on Fractional Differentiation and its Applications) series of conferences. This series brings together mathematicians, engineers, and industry professionals working in this and related fields. It will offer ISAAC members interested in fractional calculus additional opportunities for collaboration.

On a different note, the more attentive among you may have already noticed that our ISAAC webpage is undergoing a major upgrade. This is due to the tremendous efforts of Prof. Mityushev and Tomasz Ligocki, for which we are sincerely grateful.

Altogether, I wish you a pleasant ISAAC Congress and a wonderful summer in the stimulating environment of Astana.

Uwe Kähler President of ISAAC

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2nd International Workshop on Harmonic Analysis and Operator Theory (WHO 2024)

The 2nd International Workshop on Harmonic Analysis and Operator Theory (WHO 2024) was held on July 29–31, 2024, and attended by more than 100 participants from 11 countries. The invited speakers were Ingrid Beltita from the Romanian Academy, Oscar Blasco from the U. of Valencia, Boo Rim Choe from Korea U., Hyung Woon Koo from Korea U., Victor Lie from Purdue U., Mohammad Sal Moslehian from Ferdowsi U., Matthias Neufang from Carleton U., Victor Nistor from the U. of Lorraine, Nenad Teofanov from the U. of Novi Sad, Joachim Toft from Linnaeus U., Ali Ülger from Koç U., and Aurelian Gheondea from Bilkent U.. The meeting was also dedicated to A. Gheondea on the occasion of his retirement from Bilkent. J. Toft was unable to attend due to passport problems unfortunately. There were also about 20 contributed talks.



This second workshop continued the spirit of the first one in 2019 which is to bring together both leading and emerging researchers from the two fields in the title for productive interaction. The second workshop was delayed because the the Covid-19 pandemic. The size and length of the workshop was suitable for close discussion and collaboration.

Many participants also enjoyed the historical and natural beauty of İstanbul on a boat ride on the Bosphorus.

The unconditional and early support of ISAAC was truly instrumental in the success of this workshop. The organizers are grateful for it. We announced the upcoming 15th ISAAC Congress to be held in Astana in 2025 to the participants.

The web site of the workshop is <u>https://who2024.istanbul.edu.tr/</u> and contains several photos.





Meeting on Differential Equations in Ancona

Department of Industrial Engineering and Mathematical Sciences, Polytechnic University of Marche, Italy

September 02-04, 2024

The "Meeting On Differential Equations in Ancona" took place from Monday 2 September to Wednesday 4 September 2024 at Università Politecnica delle Marche, in Ancona (Italy).

This event aimed to bring together leading experts and young researchers working on several topics related to the analysis of partial differential equations: linear and non-linear hyperbolic problems, conservation laws, dispersive equations, mathematical fluid mechanics, presence of randomness in PDEs, theory of elasticity...



The conference offered 15 research talks by both internationally recognised researchers and young researchers. It was attended by around 30 participants from all over the Europe (Italy, Austria, France, Germany, Spain...), who enjoyed a lively working environment and interesting discussions.

The conference was organised by Francesco Fanelli (Basque Center for Applied Mathematics, Spain) and Giovanni Girardi (Università Politecnica delle Marche, Italy).

Further information about the meeting can be found on the website:

https://sites.google.com/view/mode-in-ancona/home.



02-04 September 2024

Meeting on Differential

Equations in Ancona Polytechnic University of Marche



Dear Colleagues, dear students

It is a great pleasure to invite you to participate to the 13th ICFDA'2025, International Conference on Fractional Differentiation and its Applications, which will be held in Algiers, Algeria, on 16-18 December 2025. https://conferences.ifac-control.org/icfda2025/

The conference will provide an excellent international forum for the dissemination of original research results, new ideas, and practical development experiences which concentrate on both theory and practices of academics, researchers, engineers, and also industry professionals, in the areas related to fractional differentiation and its applications.

Our fractional calculus community continues to grow, and new challenges have emerged in several disciplines where this mathematical tool has been able to give a new direction and new perspectives to research. Together, we can push scientific boundaries even further and contribute to improving human well-being.

Looking forward to seeing you in Algiers, this Mediterranean city portal to Africa and Europe with its unique beauty, attraction, culture, and lifestyle!

Sincerely yours,

On behalf of the National Organization Committee Prof. Samir LADACI General Chair of ICFDA'2025



Submission guidelines

All papers and proposals must be submitted electronically using the IFAC PaperPlaza conference manuscript management system. All the details are given on the website: https://conferences.ifac-control.org/icfda2025/participate/#ifac-submissionmanagement-system

*Note that there is no need to registrate for the initial submission. The registration is required only for the final submission (starting on September 1 2025), after acceptance.





IFAC Main Sponsoring Technical Committee

TC 2.2 Linear Control Systems Approved by the Technical Committee 2.2 and the IFAC French NMO

Important Dates

Jun. 30, 2025 Invited Session and Tutorial proposal deadline Jun. 30, 2025 Regular / invited paper submission deadline Jun. 30, 2025 Discussion paper deadline Sep. 01, 2025 Registration opening Sep. 15, 2025 Notification of acceptance Oct. 15, 2025 Final paper submission deadline



Prof. Dr Samir Ladaci

International Program Committee

IPC Chair YangQuan Chen IPC Co-Chair Milan Rapaic Editor Stéphane Victor Co-editor Karima Deramchi

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Technical Areas in FDA

Artificial Intelligence Automatic Control & Stability **Biology & Biomedicine** Earth Science **Electrical Engineering** Electromagnetism Electrochemistry Epidemics Finance and Economics History of Fractional-Order Calculus Image Processing

Mathematical methods Mechanics & Viscoelasticity **Mechatronics** Physics Robotics Signal Processing Singularities Analysis and Integral Representations Special Functions System Identification & Modeling System analysis & Integral Representations **Thermal Engineering** Variational Principles

National Organization Committee

Samir Ladaci

Abdelfatah Charef

M. S. Si Abderrahmane

NOC Chair

Others

Venue,

The venue will be at the famous Algiers Marriott Hotel Bab Ezzouar, a 5 stars hotel, With special prices for ICFDA2025 attendees.

At 10 min from the International Airport Houari Boumediene, Algiers. A special shuttle is provided for transfers from the Airport.







15th ISAAC congress

The 15th ISAAC congress will take place at Nazarbayev University from 21 July to 25 July, 2025. The congress continues the successful series of meetings previously held in Delaware, USA (1997), Fukuoka, Japan (1999), Berlin, Germany (2001), Toronto, Canada (2003), Catania, Italy (2005), Ankara, Turkey (2007), London, UK (2009), Moscow, Russia (2011), Krakow, Poland (2013), Macao, China (2015), Växjö, Sweden (2017), Aveiro, Portugal (2019), Ghent, Belgium (2021), Ribeirão Preto, Brazil (2023).

There are currently 23 thematic sessions.

Plenary Speakers are

Manuel Del Pino (University of Bath, UK) Hongije Dong (Brown University, US) Yoshikazu Giga (University of Tokyo, Japan) Martin Hairer (EPFL, Switzerland) Carlos Kenig (University of Chicago, US) Ari Laptev (Imperial College London, UK) Alexei A. Mailybaev (IMPA, Brazil) Nader Masmoudi (Courant Institute at NYU, US) Mete Soner (Princeton University, US) Carola-Bibiane Schönlieb (University of Cambridge, UK) Susanna Terracini (University of Turin, Italy) Gang Tian (Peking University, China) Xiangyu Zhou (Institute of Mathematics, Chinese Academy of Sciences, China) Elia Bruè (Bocconi University, Italy)

There will be a **Public Lecture** by Michael Ruzhansky (Ghent University, Belgium) Currently, registration for ISAAC 2025 is open. Please, do visit

https://isaac2025.org/information/



ISAAC CONGRESS ASTANA | 2025

Nazarbayev University, Kazakhstan



ICMAM - ISAAC news

Dear ISAAC Members,

We are pleased to invite you to join ICMAM Latin America (International Community of Mathematicians from Latin America) as a Life member. Registration of any ISAAC Member is free of charge.

As collaboration between ISAAC and ICMAM Latin America continues to grow, we will continue organizing a series of joint conferences and academic events. By joining our community, you will receive updates and announcements about these upcoming activities, where ISAAC members are always warmly welcomed. The list of ICMAM members will continuously be updated in this https://icmam-latin-america-comm-l6p9we2.gamma.site/ . As an ICMAM member, you are welcome to take part in our open calls — to co-organize events with us and to publish your work in our book series with Springer.

We would be delighted to have you as part of our international network.

To register, please visit:

https://docs.google.com/forms/d/e/ 1FAIpQLSdMEGbV7rDaasOx_RHJrIYeOoFi0z6z78PuXdE5mykCRi7GsQ/viewform

Warm regards, Duván Cardona, Karina Navarro Gonzalez and Brian Grajales ICMAM Executive Committee

https://sites.google.com/view/icmamlatinamerica/home

Upcoming conferences:

- 15th ISAAC congress, Nazarbayev University, July 21-25, 2025, https://isaac2025.org/

- Perspectives in Partial Differential Equations, University of Basilicata, Matera (Italy), 9-10 September, 2025, <u>https://sites.google.com/unibas.it/ppdes2025/</u>

 Advanced Computational Methods in Engineering and Applied Mathematics (ACOMEN2025), congress center Zebrastraat, Ghent, Belgium, September 15 – September 19, 2025, <u>https://cage.ugent.be/acomen2025/</u>

- 13th ICFDA'2025, International Conference on Fractional Differentiation and its Applications, Algiers, Algeria, 16–18 December 2025, https://conferences.ifac-control.org/icfda2025/

New members

Wolfgang Bock

Wolfgang Bock is an Associate at Linnaeus University, Växjö, Sweden (since August2023). He obtained his Ph.D. in Mathematics from Technische Universität Kaiserslautern in 2013 supervised by MartinGrothaus. After a post-doctoral fellowship at the University of Lisbon he held a permanent position at TU Kaiserslautern from 2014 and served as Visiting Professor at MSU-IIT, Philippines. Bock's research spans White Noise Analysis, Malliavin Calculus, functional analysis of stochastic partial differential equations-including fractional and rough SPDEs-and applications to statistical mechanics and epidemic modelling. In the latter he was member of several international consortia during the COVID-19 pandemic. In addition, he has publications in operator algebras and mathematics education. His current research focuses on the Watanabe-Malliavin regularity theory for SPDEs and its characterisation via suitable holomorphic function spaces - combining white noise analysis and Malliavin calculus techniques..

Sema Yayla Hacettepe

Dr. Sema Yayla is a researcher in mathematics specializing in the analysis of partial differential equations (PDEs) and their long-time behavior. She earned her Ph.D. in Applied Mathematics from Hacette University in Türkiye, focusing on the long-time dynamics of semilinear plate equations. Currently an Assistant Professor at Hacettepe University, her research involves analyzing global attractors for various models, including plate equations, wave equations, and Cahn-Hilliard equations.









Last, but not least

... and on a more irreverent note, we conclude this newsletter — with apologies to Sir Isaac Newton.



"Nobody knows this, but weeks before Newton, Sir Thomas Edward is said to have been the first man to grasp the concept of gravity!"

See you soon in Astama.