

## Dear ISAAC members,

Happy New Year for 2019. The year 2018 was eventful for ISAAC. We are very happy that the organization received more than 60 new members during the past year. We are especially happy that You are very welcome to ISAAC. These new members enrich ISAAC in several ways in the fields of analysis and its applications.

As you may see below, several events and meetings during the passed year gained some support from ISAAC.

We also regret that some strong analysts passed away in the end of the 2018. One of them is the ISAAC life member, as well as the Ordinary Member of the Polish Academy of Sciences, Professor Bogdan Bojarski, who passed away December 22, 2018. The same day, Professor Jean Bourgain at Princeton University, USA died, and the day after, December 23, Professor Elias Stein from the same university, died.

Joachim Toft (vice-president of ISAAC)

## The news deal with

- Meetings supported by ISAAC
- Other meetings associated to ISAAC
- New members (supplementary files)
- Members that passed away
- Information about the next ISAAC congress

## Meetings supported by ISAAC:

### International Conference "Perspectives in Modern Analysis" at HIT – Holon Institute of Technology, Israel

**70 well known experts in "Modern Analysis" participated at an Int'l conference that was held on May 28—31, 2018, at HIT in honor of Prof. Dov Aharonov, Prof. Samuel Krushkal, Prof. Simeon Reich and Prof. Lawrence Zalcman, world-wide known Israeli analysts in this field.**

The conference was organized as a forum for discussions and exchange of new ideas, perspectives and recent developments in the broad field of Modern Analysis. It was done in collaboration with the Technion, Bar Ilan University, Ort Braude College, Israel Mathematical Union and in association with International Society for Analysis, its Applications and Computation (ISAAC).

This is the 4<sup>th</sup> International conference that HIT hosts, with participating scientists from the USA, the Ukraine, Austria, Ireland, Japan, Mexico, Poland, Finland, Cyprus, Romania, Russia, France and Israel.



From left: Prof. Tomoki Kawahira (Tokyo, Japan), Prof. Toshiyuki Sugawa (Sendai, Japan),  
Prof. Hiroshige Shiga (Tokyo, Japan) Photo: Lior Bloch



From left: Prof. Eva Kopecka (Innsbruck, Austria), Prof. Anatoly Golberg (HIT)  
Photo: Lior Bloch

The conference participants listened to over 30 lectures given by scientists and mathematicians from around the world and by Israeli scientists from the Technion, Bar Ilan University, the Hebrew University of Jerusalem, Tel Aviv University, the Weizmann Institute, Ort Braude College and HIT.



Prof. Anthony O'Farrell (Maynooth, Ireland). Photo: Lior Bloch.

**The conference's organizing committee members:**

Prof. Anatoly Golberg, Prof. Eugene Kanzieper, Prof. David Shoikhet, Dr. Michael Kroyter and Dr. Maria Elena Luna-Elizararis.

**The conference was sponsored by** the Technion, Bar Ilan University, the Galilee Research Center for Applied Mathematics of Ort Braude College and the Israel Mathematical Union.

## Conference “Micro and pseudo ..., but Great!” Micro-Local and Time-Frequency Analysis 2018

Turin, July 2-6, 2018

<http://www.mltf18.unito.it>

The conference has been held at the University of Turin (Italy) on occasion of the 70<sup>th</sup> birthday of Professor Luigi Rodino. It has been organized with the patronage of the University of Turin and supported by the University and the Politecnico of Turin. Invited plenary speakers were

- |  |                                   |
|--|-----------------------------------|
| - Karlheinz Gröchenig (Wien)             | - Michael Ruzhansky (London)      |
| - Bernard Helffer (Nantes and Paris-Sud) | - Bert-Wolfgang Schulze (Potsdam) |
| - Otto Liess (Bologna)                   | - Joachim Toft (Växjö)            |
| - Alberto Parmeggiani (Bologna)          | - Man-Wah Wong (York)             |
| - Stevan Pilipovic (Novi Sad)            |                                   |

The conference had about 100 participants from many countries. In addition to the plenary lectures, it counted a dense schedule of short communications and a poster session. Topics included: Fourier integral operators, pseudodifferential operators, microlocal and time-frequency analysis, linear and nonlinear partial differential equations, solvability, and regularity, function spaces, distribution theory, hyperfunctions, algebras of generalised functions, integral transforms, applications in mathematical modelling, mathematical physics, quantum mechanics and quantum fields theory.

A volume in honor of Professor Luigi Rodino, based on the contents of the conference, will be published in the Birkhäuser series

**Applied Numerical and Harmonic Analysis** (series editor: John J. Benedetto).





## ETOPIM 11

<http://etopim11.up.krakow.pl/>

ETOPIM11 was dedicated to Ross McPhedran in celebration of his 70th birthday.

**Organizer:** Pedagogical University of Cracow/  
Faculty Math., Phys and Technology/

Int. Research group MATERIALICA+ [www.materialica.plus/](http://www.materialica.plus/)

**Chairs of the Organizing Committee:** Vladimir Mityushev and Natalia Rylko

**Date and place:** 16-20.07.2018, Krakow, Poland

**Number of participants:** 111

**Number of talks and posters:** 96

**Previous conferences:** 2015– Neveh Ilan, Israel; 2012 –Marseille, France; 2009 – Crete, Greek; 2006 – Sydney, Australia; 2002 – Utah, USA; 1999 – Hong Kong, China; 1996 – St. Petersburg/Moscow, Russia; 1993 – Guanajuato, Mexico; 1987 – Paris, France; 1977 – Ohio, USA.

The conference was a forum for the exchange of knowledge, presentation of research and scientific achievements as well as discussions of scientists in the field of electric transport and the optical properties of inhomogeneous media. In particular, the conference topics



included: plasmonics, electromagnetic and optical properties of metamaterials, homogenization theory and effective properties of composites, transport issues in random environments, new engineering materials with given properties, nanocomposites, electromagnetic and acoustic imaging, etc.

111 participants representing 46 scientific units from 16 countries gave 77 talks. Three mini-symposia were organized. 19 participants had the opportunity to present their results at the poster session.

The most numerous groups of conference participants besides Poland came from France (19), Japan (13) and the United States (11). Scientific groups from Russia, UK, Germany, Georgia took part. In total, representatives of 16 countries took part at the conference.

Ross McPhedran and Ping Sheng awarded the *Landauer medal* for outstanding scientific results in electric transport and the optical properties of inhomogeneous media.

The following Master Classes were organized first of all to young scientists and PhD students for introduction to the theory of metamaterials:

- Martin Wegener - "Experiments on Cloaking in Optics, Thermodynamics and Mechanics",

- Ross McPhedran - "The Spectrum and the Transport Properties of Composite Media"

The presidents of societies and the leaders of scientific groups took part at the conference:

- Prof. Mitsuteru Inoue - Magnetism Society of Japan (2013 to 2015), 147th Committee on Amorphous and Nano-Crystalline Materials of the University-Industry Cooperative Research Committees, Japan Society for the Promotion of Science (JSPS).
- Prof. Michael Reissig – International Society for Analysis its Applications and Computation (ISAAC).
- Prof. Graeme Milton - Electrical, Transport, and Optical Properties on Inhomogeneous Media (up to 2018)
- Prof. David Bergman - Electrical, Transport, and Optical Properties on Inhomogeneous Media (from 2018)

The conference was supported by the Krakow city authorities. The firm LaStrada provided for the catering service. The firm Pro Human Design created and prepared the image of the event, comprehensively developing the artistic graphic design of the website, gadgets, identifiers, promotional materials etc.

Chairs of the Organizing Committee  
Vladimir Mityushev and Natalia Rylko

## Symposium in Harmonic Analysis and Geometric Measure Theory

The Symposium in Harmonic Analysis and Geometric Measure Theory, organized for the first time in Ribeirão Preto - Brazil - in August 2018, intends to gather, on a regular basis, researchers of all academic age working in both fields of Harmonic Analysis and Geometric Measure Theory.

The presence of a number of distinguished mathematicians in Brazil on occasion of the ICM2018 and Satellite ICM Conferences was a good opportunity to attract some international experts working in both fields to the Symposium. Thirteen speakers participated at the conference:

Marcelo de Almeida (Brazil)	Gabriel Ara_ujo (Brazil)	Emanuel Carneiro (Brazil)
Galia Dafni (Canada)	Udayan Darji (USA)	Pedro Tavares Lopes (Brazil)
Irina Mitrea (USA)	Laurent Moonens (France)	Pablo De N_apoli (Argentina)
Stefano Nardulli (Brazil)	Luis Ragognette (Brazil)	Mateus Sousa (Argentina)
Andrew Raich (USA)		

The conference has been attended also by local professors and students. Ph.D and Master students had the chance to discuss with experts their own results in a poster session.

The Symposium has been supported by FAPESP, DCM-USP, AUCANI-USP, and ISAAC.

The web of the conference is [http://dcm.\\_clrp.usp.br/shagmt/](http://dcm._clrp.usp.br/shagmt/)

Authors: Prof. Marcelo Rempel Ebert (USP) and Prof. Tiago Henrique Picon (USP)



## International Conference on Generalized Functions GF2018

dedicated to Professor Michael Oberguggenberger's 65<sup>th</sup> birthday

<https://sites.dmi.uns.ac.rs/icgf2018/default.html>

### Organized by

Department of Mathematics and Informatics, Faculty of Sciences, University of Novi Sad, Serbia

The conference took place at University of Novi Sad, Serbia during 27-31 August. There were around 75 participants and continued a long-standing tradition of international conferences on generalised functions gathering researchers working in all branches of generalized functions. The most recent conferences were held in Dubrovnik (Croatia, 2016), Southampton (United Kingdom, 2014), Martinique (France, 2011), Vienna (Austria, 2009), Bedlewo (Poland, 2007), Novi Sad (Serbia, 2004), Guadeloupe (France, 2000), Novi Sad (former Serbia and Montenegro, 1996), Oberwolfach (Germany, 1989), Dubrovnik (former Yugoslavia, 1987). Topics for the meeting were among others:

- Distribution theory, hyperfunctions, algebras of generalised functions, integral transforms
- Linear and nonlinear partial differential equations, regularity, stochastic analysis
- Pseudodifferential operators and microlocal analysis, function spaces
- Applications in mathematical physics, and other sciences
- Geometric problems and nonlinear distributional geometry
- Harmonic analysis, modulation spaces, time-frequency analysis

### Plenary speakers

- |  |   |
|--|---|
| - Nenad Antonić (University of Zagreb)     | - Bojan Prangoski (University of Skopje)                          |
| - Sandro Coriasco (Università di Torino)   | - Michael Reissig (Technische Universität, Bergakademie Freiberg) |
| - Hans Feichtinger (Universität Wien)      | - Michael Ruzhansky (Imperial College London)                     |
| - Günther Hörmann (Universität Wien)       | - Joachim Toft (Linnaeus University)                              |
| - Tokio Matsuyama (Chuo University, Tokio) | - Jasson Vindas (Ghent University)                                |
| - Marko Nedeljkov (University of Novi Sad) | - Yaguang Wang (Shanghai Jiaotong University)                     |



## 9th INTERNATIONAL WORKSHOP

### «Analytical Methods of Analysis and Differential Equations» (AMADE-2018), dedicated to 70<sup>th</sup> anniversary of Prof. A.A.Kilbas (1948-2010)

The Belarusian State University and the Institute of Mathematics of the Belarusian National Academy of Sciences organized and held at **September 17-21, 2018, in Minsk, Belarus**, the 9th International Workshop “Analytical Methods of Analysis and Differential Equations” (AMADE-2018), dedicated to 70<sup>th</sup> anniversary of Prof. Anatoly Kilbas (1948-2010). The Workshop was held under the guidance and support of the International Society for Analysis, its Applications and Computation (ISAAC).

The Workshop was dedicated to the memory of Professor Anatoly Kilbas, a well-known expert in Fractional Calculus, Integral and Differential Equations and Special Functions, the creator and one of the organizers of the AMADE Conferences, a member of the Board of ISAAC (2007-2010).

AMADE-2018 continued the tradition of such Conferences held in Minsk during more than 20 years (1996, 1999, 2001, 2003, 2006, 2009, 2011, 2012, 2015). The Conference was organized in form of a workshop, i.e. known experts in Analysis, Differential Equations and their Applications delivered lectures on modern topics in their branches of science. Young mathematicians presented their results in parallel sessions. Among the lectures at this Workshop were S.M.Bosiakov (Minsk, Belarus), V.I. Burenkov (Moscow, Russia), A. Chechkin (Berlin, Germany), V.N. Denisov (Moscow, Russia), V.E. Fedorov (Chelyabinsk, Russia), B. Gambin (Warsaw, Poland), A.L. Gladkov (Minsk, Belarus), V.V. Gorokhovik (Minsk, Belarus), M.T. Dzhenaliev (Almaty, Kazakhstan), V.I. Korzyuk (Minsk, Belarus), A.I. Kozhanov (Novosibirsk, Russia), V.P. Lexine (Kolomna, Russia), L.N. Lyakhov (Voronezh, Russia), G. Mishuris (Aberystwyth, UK), S. Rutkauskas (Vilnius, Lithuania), S.V. Rogosin (Minsk, Belarus), A.P. Sadovskii (Minsk, Belarus), V.A. Savva (Minsk, Belarus), S.M. Sitnik (Belgorod, Russia), I.M. Spitkovskii (Abu Dabi, UAE), V.V. Uchaikin (Ulyanovsk, Russia), Vu Kim Tuan (Carrollton, USA), L.A. Yanovich (Minsk, Belarus).

The venue of the Workshop covered modern directions of Analysis, Fractional Calculus, Integral Transforms and Special Functions, Integral and Differential Equations and their Applications in Physics, Mechanics, Biomechanics and Economics.

The Workshop AMADE-2018 was an important event in the scientific life of Belarus. It gives possibilities to create new research contacts between the scientists from different countries, to maintain a high level of the investigations in the corresponding areas of science, as well as to attract young people and to get involved them in further research.

Sergei Rogosin, vice-chairman of AMADE-2018, Belarusian State University

Anna Koroleva, dean of the faculty of economics, Belarusian State University



## Other meetings associated to ISAAC

### International School-Conference "Sobolev Readings"

dedicated to the 110<sup>th</sup> anniversary of the birthday of Sergei L. Sobolev

<http://www.math.nsc.ru/conference/sobolev/readings/2018/english/>

#### Organized by

The Sobolev Institute of Mathematics of the Siberian Branch of the Russian Academy of Sciences jointly with Novosibirsk State University

Unfortunately, no officers from ISAAC had possibilities to participate. During the opening ceremony, the following note from ISAAC was read:

**Dear Prof. Gennadii Demidenko**, dear participants of the International School-Conference "Sobolev Readings"

In these days you celebrate the 110th anniversary of the birthday of S.L. Sobolev, a mathematician who deeply inspired most of mathematicians with interest in Mathematical Analysis.

Sobolev, one of most important scientists and mathematicians, was an example of concerning scientific, visionary, organizational and social development.

We admire Sobolev's fundamental achievements and theories of extreme importance in different areas of mathematics. Results that often have received major applications in technology and science. His early interest in partial differential equations combined with ingenuity and intellectual brilliance quickly led to establishments of new functional spaces and theories, such as Sobolev spaces and distribution theory, which today are indispensable in modern mathematics, science and technology. We also admire his fundamental results in, for example, spectral theory, computational mathematics (multidimensional) interpolation theory and numerical methods/analysis. During his late years, Sobolev also made major achievements to reduce the cost of computations of multiple integrals, based on his, at that time, new strong results in the theory of cubic formulae.

With his strong background in distribution theory and functional analysis, Sobolev has also made groundbreaking contributions towards technical problems. He was one of the first scientists who realized the importance of computational mathematics and cybernetics.

Sobolev was early discovered by Smirnov, and was then quickly brought to the attention of the scientific community of Soviet Union. He became a full member of USSR Academy of Sciences. He was only 31 years old at the time of the elections, which was a remarkable achievement. Thereafter he was appointed to director of the Steklov Institute, still at young age. For his major efforts in military technology, Sobolev gained at two occasions the Stalin Prize of the First Degree. In January of 1952 Sobolev was awarded with the highest title of the USSR: he was declared the Hero of the Socialist Labor for exceptional service to the state.

In 1988 he received, strongly deserved, Russian Academy of Sciences' highest prize - Lomonosov's gold medal.

We also appreciate his community commitment and good organizational skills, e.g. for the foundation of the big scientific center - the Siberian Division of the Academy of Sciences. He was one of those who spread science and improved scientific research into the eastern part of former Soviet Union, something that Novosibirsk, as well as several countries that emerged from Soviet Union, can enjoy today.

When Sobolev died in 1989, he left a heritage of, among others, extremely important scientific achievements, an extremely strong mathematical, scientific and technological research environment. That's something we all can enjoy today. In this context, we (the ISAAC officers) ask why Sobolev was neither awarded the Field's medal nor the Wolf Prize. Did he not deserve both of them?

It is with regret that no one among ISAAC's officers can attend this very important jubilee conference to honor Sergei Lvovich Sobolev as a person and scientist.

Dear Prof. Demidenko, dear participants of the International School-Conference "Sobolev Readings".

We wish you a successful meeting. We are sure that you spend unforgettable days in Novosibirsk.

Sincerely yours

Irene Sabadini, Michael Reissig and Joachim Toft

Officers of ISAAC



## New Members since the middle of July 2018

Ascanelli, Alessia  
Bellazini, Jacopo  
Chen, Quihui  
de Almeida, Marcelo  
Del Corso, Giulio  
dos Santos Filho Jose Ruidival Soares  
Ferreira, Milton  
Gomes, Narciso  
Hadzi-Velkova Saneva, Katerina  
Hytönen, Tuomas  
Jäh, Christian  
Kainane Mezadek, Abdelatif  
Kainane Mezadek, Mohamed  
Kalmes, Thomas  
Kato, Tomoya  
Luna Elizarraras, Maria Elena  
Mashreghi, Javad  
Moonens, Laurent

Musolino, Paolo  
Nguyen, Thieu Huy  
Picard, Rainer  
Prangoski, Bojan  
Sawano, Yoshihiro  
Scandone, Raffaele  
Shakarov, Boris  
Shapiro, Michael  
Spreitzer, Christian  
Stoeva, Diana  
Takahiro, Noi  
Takahisa, Inui  
Takeda, Hiroshi  
Tarulli, Mirko  
Venkov, George  
Vieira Nelson Filipe Loureiro  
Wahlen, Erik  
Waurick, Marcus

You are very welcome to ISAAC. See supplementary file for more information.

### First ISAAC member from Cabo Verde

Narciso Gomes is the first ISAAC member from Cabo Verde, a small island nation in the Atlantic Ocean off the coast of Senegal. He was born on the volcanic Island of Fogo and made his studies at the University of Aveiro in Portugal. After receiving his PhD from the University of Aveiro in 2015 he started working at the University of Cabo Verde. Last year he gave a talk at the 11th ISAAC congress in Växjö, Sweden. His research field is Clifford analysis.



Narciso Gomes is the person in the center (Flanked by Frank Sommen on the left and Michael Ruzhansky on the right)

## Members that passed away since July 2018

We regret that the following ISAAC members passed away since July 2018.

**Bogdan Bojarski, (1931-2018)** A memorial note will be presented in the next newsletter.



Bogdan Bojarski, Lars Hörmander and Vidar Thomée in Norway 1965 (photo by Vidar Thomée, available in a memorial paper at AMS for Lars Hörmander).

## The next (12th) ISAAC congress in Aveiro:

The ISAAC board, the Local Organising Committee and the Department of Mathematics at the University of Aveiro, Portugal, are pleased to invite you to the 12th International ISAAC Congress to be held in Aveiro, Portugal from July 29 to August 02, 2019.

### Confirmed plenary speakers:

Afonso Bandeira - Courant Institute, NYU, USA  
Alexander Grigoryan - Universität Bielefeld, Bielefeld, Germany  
Karlheinz Gröchenig - Universität Wien, Wien, Austria  
Håkan Hedenmalm - The Royal Institute of Technology, Sweden  
André Neves - University of Chicago, USA  
Roman Novikov - Centre de Mathématiques Appliquées, École Polytechnique, France  
Tohru Ozawa - Waseda University, Tokyo, Japan  
Samuli Siltanen - University of Helsinki, Finland  
Durbudkhan Suragan - Nazarbayev University, Kazakhstan

### Preliminary list of sessions:

- \* Applications of dynamical systems theory in biology (T. Lindström)
- \* Complex Variables and Potential Theory (T. A. Azeroglu, A. Golberg, M. L. de Cristoforis, S. Plaksa)
- \* Generalized Functions and Applications (M. Oberguggenberger, S. Pilipovic, M. Kunzinger)
- \* Harmonic Analysis and PDEs (M. Ruzhansky, J. Wirth)
- \* Pseudo differential operators (M. W. Wong, tba)
- \* Quaternionic and Clifford Analysis (S. Bernstein, U. Kähler, I. Sabadini, F. Sommen)
- \* Theory and applications of boundary-domain integral and pseudodifferential operators (S. Mikhailov, D. Natroshvili)
- \* Time-frequency Analysis and Acoustical Modelling (L. D. Abreu, P. Balazs)
- \* Wavelet theory and its related topics (K. Fujita, A. Morimoto)
- \* Recent progress in evolution equations (M. D'Abicco, M. R. Ebert)
- \* Function Spaces and Applications (A. Almeida, A. Caetano, Stefan Samko)
- \* Complex Geometry (A. Schmitt)
- \* Complex Analysis and Partial Differential Equations (O. Celebi, S. Rogosin)
- \* Integral transforms and reproducing kernels (Z. Mouayn)
- \* Fixed Point Theory, Ulam stability and related applications (E. Karapinar, J. Brzdek)

Online inscription and payment is now available. Also, additional information regarding the social program (Conference Dinner and excursions) have been added to the webpage

<http://isaac2019.web.ua.pt/>

For additional informations please contact the local organisers by the following email address:

[12th.isaac.2019@gmail.com](mailto:12th.isaac.2019@gmail.com)

We all look forward to see you in Aveiro.

**More information:** Please visit the congress home page:

<http://isaac2019.web.ua.pt/Webpage/Welcome.html>

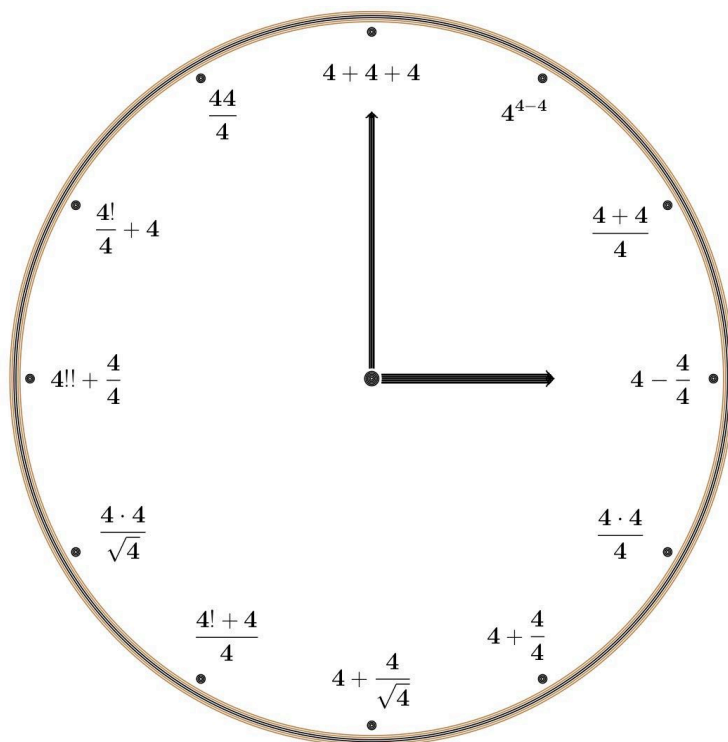
## Webpage and postal address for ISAAC:

<http://www.isaacmath.org/home/>

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Fakulty of Technology, building B  
Linnæus University  
35195 Växjö  
Sweden



## Contacts with Math-4 Society



In the end of the last year, more precisely the day after 32/13, representatives from ISAAC had the pleasure to meet professor Fakebeth McCheating, the president of M4S, or *Math-4 Society*. Professor McCheating explained that M4S for the moment are pushing for more use of the digit 4, and claimed that no other digits are needed. As example she showed the watch here above. The ISAAC representatives explained her that several ISAAC members enjoy other digits, e.g.  $\pi$  or  $e$ , and that ISAAC will not take part of the campaign.

