

ISAAC: How It Became What It Is

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Abstract A history of ISAAC from its founding in 1996 until its 10th biennial International Congress in 2015.

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1 Foundation

“Let us found an international society for analysis!” announced R.P. Gilbert upon entering the office of H. Begehr, at the Free University of Berlin (FU), late in the morning as usual after a long night working on mathematics. This idea came to him in the beginning of the 1990s, almost 25 years ago. “What for?” replied Begehr, “Do you want to become the president of something?” But it was not just a mood. There

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was already the idea to call the society after Newton “ISAAC,” the International Society for Analysis, its Applications and Computation.

In the 1970s R.P. Gilbert had been honored by an Alexander von Humboldt Award, at that time still restricted to US citizens, which had enabled him to extend his stay in Berlin for an additional semester at FU Berlin in 1974/1975. About 15 years later he used the AvH-reinvitation program for another visit at FU. Begehr and Gilbert were involved in writing a monograph [1] and the idea of an ISAAC was put aside for a while. During January 15–17, 1993, there was the conference on Complex Analysis and its Applications at the newly founded Hong Kong University of Science and Technology, organized by Chung Chun Yang. Here Gilbert brought up the idea about ISAAC at the conference and the response from colleagues was indeed supportive. In particular, C.C. Yang was enthusiastic. But his aim was different; in his view the main purpose behind the founding of the ISAAC was to promote and restore the prestige of complex analysis as an area in mathematical research. In this sense he was quite active at that time, e.g., with his book series in complex analysis with Gordon and Breach and with Kluwer. However, Gilbert had in mind a less focussed society which would “promote analysis, its applications, and its interaction with computation.” This idea was adopted by the colleagues at the conference and was imbedded in ISAAC’s constitution. The goal of ISAAC was to act as a society in the broad field of analysis and should never be dominated just by some particular subfield.

Three more years passed by before Gilbert had prepared to incorporate the society as a nonprofit organization in the state of Delaware. This registration had to be renewed every year for about US\$30 and was terminated in 2005. The registration was important because otherwise a tax rate of 2% would have applied even to membership fees paid in the USA.

In 1996 activities of ISAAC began in earnest with Gilbert opening a bank account in Delaware and Begehr one in Berlin. C.C. Yang, the founding vice president, was asked to act as a treasurer for Asia. In April Gilbert had set up registration forms for memberships. They were sent out internationally and the founding members became registered. Indeed, this enabled Begehr sending US\$1000 to Gilbert in that June for paying the cost of registration. Shangyou Zhang, a young colleague of Gilbert, set up a home page for ISAAC at the University of Delaware and consequently became the ISAAC corresponding secretary. A second website was established at the Freie Universität Berlin with a link to the main site in Delaware. And Yuri Hohlov opened a site in Moscow. He also managed to create the ISAAC logo, a drawing of the head of ISAAC Newton. Hohlov had put a list of ISAAC fellows on his site, which contained many mathematicians to whom Begehr had sent an invitation to join ISAAC. This publication was risky as none of the persons on the list were ever asked if they agree. By the way, only some were recruited at that time and had paid their dues. Nevertheless, the list survived somehow on the main website at Delaware now in the “List (all ISAAC related people),” containing more than 500 names; however their email addresses are not visible for the public but can be used to send messages. Probably it was never used again and has not been

updated. The Moscow page disappeared, however, as soon as Hohlov joined the Lenin Library in Moscow as an employee.

2 ISAAC Publications, Proceedings

Gilbert prepared the 1st International ISAAC Congress at the University of Delaware (UD) early in 1996. This Congress took place from June 3 to 7, 1997. It was necessary to reduce registration fee for the congress, as well as the society membership fee, for attendees from countries with weak economies. Also it was decided that the Congress fee should contain some part of the ISAAC membership fee for the following 2 years. The congress was organized in parallel sessions, altogether more than 25, and plenary talks; see the ISAAC home page “mathissac.org” under “congresses”. The congress fee of US\$100 was moderate for the developed countries. Several publishers were present, not just for book presentations but with editors who were interested in obtaining book contracts with ISAAC and its members. In particular John Martindale from Kluwer was enthusiastic about the new society and was expressing his wish that ISAAC will soon compete with SIAM in magnitude and importance. He signed a contract with Gilbert about a book series “International Society for Analysis, Applications and Computation.” Ten volumes have appeared between 1998 and 2003. In 1997 the market for scientific literature was still okay. Kluwer had guaranteed for US\$500 each volume published in this series and for the first two volumes this amount was actually paid. Obviously Kluwer did not make money with the series and stopped paying. When Kluwer then merged with Springer after 2003 and the name Kluwer disappeared, the book market for proceedings had collapsed because of the restricted book budgets of university libraries. Springer had decided not to publish ISAAC’s proceedings anymore and as a consequence had terminated the Kluwer ISAAC series. John Martindale continued to work for Springer. He managed, e.g., in 2006 to get the English translation of the first volume of the *Selected Works of S.L. Sobolev* published by Springer. The Russian original had appeared in 2003. But Martindale was not happy with the new company and had quit. A translation of the second Sobolev volume, published in Russian language in the same year 2006, has not appeared. However, Springer was not interested in further collected works, for examples, the translation of the 2009 in Russian language published *Selected Works of S.M. Nikol’skii*. Therefore some years later this publisher has changed its policy. Already in 2003 Birkhäuser, since 1985 part of Springer, has started its series “Trends in Mathematics” and in 2011 Springer itself has started its “Springer Proceedings in Mathematics,” now “Springer Proceedings in Mathematics & Statistics,” where proceedings volumes are published. In 2013 Birkhäuser has started the subseries “Research Perspectives” of the “Trends in Mathematics.” Since the 2013 congress in Krakow the proceedings of ISAAC are published in these series, the plenary talks volumes in the Springer series, and the general proceedings volumes with Birkhäuser. The general Krakow proceedings volume is the second

book in this newly opened subseries. But the general proceedings volume gets smaller and smaller as more sections are publishing their own volumes in order to avoid length restrictions for manuscripts.

As a consequence to the situation with publishers H. Begehr had started to tight ISAAC's strings with World Scientific in Singapore. This company had published the main proceedings from 2001 in Berlin in a very reliable way with convincing results. The problem was the requirement of bulk orders. Joji Kajiwara had succeeded in finding financial resources for paying the printing costs for the two proceedings volumes from 1999 of together more than 1,600 pages.

By the way he did a marvelous job although he had to look after his sick spouse daily for years. On the occasion of his 70th birthday ISAAC has honored him with a "Distinguished ISAAC Service Award".

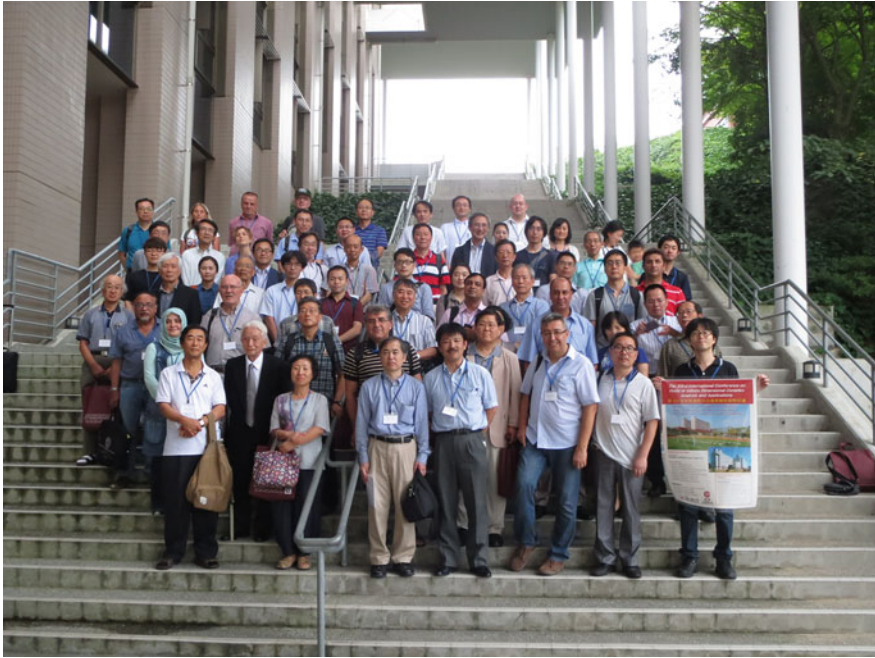


Joji Kajiwara Fukuoka 2015

It was presented to him at the 12th International Conference of Finite and Infinite Dimensional Complex Analysis and Applications in Tokyo in July 2004, one of a yearly held series of conferences, organized by mathematicians at first from the countries China, Japan, and Korea, to which later Thailand and Vietnam and recently India have joined in. This series was once initiated by Joji Kajiwara.

The Fukuoka proceedings volumes were the only ones of all ISAAC congresses where almost all contributions are published in total. Maybe it was just an accident that some contributions from the session "Analytic Extension Formulas and their Applications" were published together with the ones from a conference from 11 to 13 January, 2000, on "Applications of Analytic Extensions" at the Research Institute for Mathematical Sciences of the Kyoto University in an extra volume in the ISAAC Kluwer series 2001 under the title "Analytic Extension Formulas and their Applications" edited by Saburou Saitoh, Nakao Hayashi, and Masahiro Yamamoto.

From the Delaware 1st ISAAC congress, four sections have published their papers in extra volumes outside the ISAAC Kluwer series; see the ISAAC home



23rd International Conference on Finite or Infinite Dimensional Complex Analysis and Applications Kyushu Sangyo University, Fukuoka, Japan, 24.–28. 08., 2015

page mathisaac.org. For the 3rd congress in Berlin an extra volume with the plenary lectures and some main talks from sessions had appeared in the ISAAC Kluwer series. All the other contributions made up two volumes of about 1500 pages published with World Scientific in Singapore. At the 4th congress in Toronto, Man Wah Wong had founded his special interest group under the ISAAC umbrella on pseudo-differential operators and a book series “Pseudo-Differential Operators, Theory and Applications” published with Springer-Birkhäuser. The contributions to the ISAAC congresses within the sessions on pseudo-differential operators are since 2003 published in the Birkhäuser series “Operator Theory: Advances and Applications.” Until the 7th congress in London World Scientific has published the main parts of the contributed talks. At the Krakow congress in 2013 representatives from Springer were present and new relations to this publisher were tied. Since then the proceedings are split into two parts. While the plenary talks are published in the series “Springer Proceedings in Mathematics & Statistics,” the contributed talks of most of the sessions are appearing in a volume from the Birkhäuser series “Trends in Mathematics, Research Perspectives.” After the 10th congress in Macao, ISAAC and Springer signed a contract on publishing monographs and proceedings volumes under the logo of ISAAC (see Appendix). This is the second contract about ISAAC publications as the SAAC book series with World Scientific, see <http://www.worldscientific.com/series/saac>, is also effective since 2003. Only the main

proceedings of the 8th ISAAC congress 2011 in Moscow were published without World Scientific and Springer for monetary reasons. They have appeared in three volumes published by the Peoples' Friendship University of Russia in Moscow.

A list of ISAAC publications is available at the home page mathisaac.org; see also the links there to the SIGs' home pages.

3 Members

The first ISAAC members were according to an email from Begehr to Gilbert from May 9, 1997: H. Begehr, M. Essen, R. Gorenflo, M. Kracht, S. Louhivaara, H. Malonek, W. Watzlawek, E. Wegert as life members (they had paid DM (German Marks) 250) and as annual members (the fee was DM 40) in 1995 K. Guerlebeck, P. Kravanja, M. Reissig, St. Ruscheweyh, J. Schnitzer and in 1996 Yu. Hohlov and M. Reissig. Not yet listed here are R.P. Gilbert and C.C. Yang. They both were supposed to recruit members in America and in Asia, respectively. At the end of 2015 ISAAC had 204 life members registered from 49 countries. The largest groups are from Japan (22), Russia (19), Italy (16), USA (13), China (12), Germany (10), and Kazakhstan (10). Seven members are from each Georgia and Serbia, 6 from Austria, also 6 from India, and 6 from Uzbekistan, 5 from Canada, 5 from UK, and 5 from Turkey, 4 as well from Belgium, from France and from Romania. Four countries have 3 ISAAC members: Armenia, Portugal, Sweden, and Tajikistan. The countries Algeria, Belarus, Cuba, Finland, Malaysia, Poland, Switzerland, Ukraine, and Vietnam are represented each by 2 members, and Argentina, Australia, Brazil, Egypt, Guadeloupe (France), Iran, Israel, Korea, Kyrgystan, Macedonia, Mexico, Moldova, Saudi Arabia, South Africa, Spain, Taiwan, United Arab Emirates, and Venezuela have one citizen in ISAAC. Among the "paid" members no continuation of membership fee is yet cultivated. Among the few members, however, is one institutional member from Portugal, the Center for Functional Analysis, Linear Structures and Applications in Lisbon. It has joined ISAAC in 2009 and is since then an ISAAC member. And recently in spring 2016 Springer International Publishing AG has become the second institutional ISAAC member.

Four mathematicians have been decorated as Honorary ISAAC Members. Victor Burenkov had initiated to honor Sergei Mikhailovich Nikol'skii, see [2], Academician of the Russian Academy of Sciences; at the 3rd congress in Berlin, Nikol'skii was at the age of 96, one of the plenary speakers there. At the York University in Toronto, Lee Lorch (see [3]) was—also suggested by Victor Burenkov—elected as Honorary Member. Oleg Vladimirovich Besov [4], former student and coauthor of S.M. Nikol'skii and also Academician at the Russian Academy of Sciences, became Honorary ISAAC Member at the Catania ISAAC congress in 2005. He was the first plenary speaker there and again V. Burenkov had suggested him. Lo Yang, Academician at the Chinese Academy of Sciences, was elected Honorary ISAAC Member at the 10th ISAAC Congress at the University of Macau in Macao 2015, see [5].

4 ISAAC Budget

Because international money transfer was and still is expensive, the idea at the beginning was to have local treasurers, collecting fees and only from time to time transfer bigger amounts. Due to the economical situation C.C. Yang did not collect any membership fees. Gilbert collected money in North America; Begehr had opened an ISAAC bank account in Berlin. The only financial resources of ISAAC are the membership and the congress participation fees. Already between 1995 and 1997 Begehr had collected DM (German Marks) 285 for paid membership fees and DM 2000 for life membership fees. For the registration of ISAAC as nonprofit scientific society in Delaware DM 1556.30 was transferred to Gilbert in 1997. Further in the first years ISAAC had in 1998 collected DM 1390 for conference fees and between the 2001 and 2003 congresses about Euro 610 and US\$140 from so-called paid members and about Euro 1960 and US\$1400 from life members.

But because of the monthly due bank charges, DM 109.50 until autumn of 1997, and only rare use, the account was terminated in October 1997. Since then Begehr uses his private bank account also for ISAAC. The account in Newark, Delaware, with Gilbert was dissolved in December 2006. The collected amount was used from Man Wah Wong to finance his ISAAC workshop on pseudo-differential operators from 11 to 16 December 2006 at the Fields Institute in Toronto. But Zhang still held an account for paying fees through credit cards. He had arranged for this possibility in connection with the 3rd congress in Berlin after this was demanded mainly from USA participants. In 2011 he did transfer the entire amount to Begehr and closed the account in the US on 11.11. 2011. This was just after Gilbert had retired from the University of Delaware. The main part of this amount was collected from congress fees paid via credit cards since 2001. During 2005 and 2009 Wong has collected some membership fees. This money was spent together with contributions from the Berlin account to finance the conference on “Homogenization, Inverse Problems and Applied Analysis” at the University of Central Florida in Orlando, Florida, from January 13 to 15, 2007, organized by Miao-jung Ou from the University of Delaware in honor of Gilbert on the occasion of his 75th birthday.

At its 2015 meeting in Macao, the board decided to open a bank account again for ISAAC. But this became difficult in the meantime. Banks are very careful nowadays with opening new bank accounts because of problems with money washing. Before ISAAC is not registered again as a (nonprofit) scientific society, there is no chance for an own society account. In recent years, however ISAAC’s financial situation has improved. The 3rd (Berlin), the 7th (London), and the 10th (Macao) congresses were the only ones ISAAC was able to collect funds from. Recently many non-ISAAC members from SIGs are joining ISAAC as life members and thus increasing the ISAAC property.

The basis for the property of ISAAC was laid at the Berlin congress. This congress was financially supported mainly by the German Research Foundation (DFG), the Berlin Government, and the Free University of Berlin. Unfortunately there was an economical crisis before the congress which had forced the local



75th Birthday Party of R.P. Gilbert Orlando, Florida, 2007

government to stop spending from the budget. As a consequence, when finally, 1 week before the congress, the amount of over DM 100,000 (about Euro 50,000) was transferred, this was too late to guarantee financial support to participants from the former Soviet Union as they had not enough time to apply for visa. Most of the support from the city had to be returned but some part could be saved for the society for paying bulk orders of the proceedings etc.

In 2005 ISAAC had besides the cash in Begehr's FU account Euro 22,240 furnished by the Berlin congress. Part of this amount was spent for bulk orders in 2009 for the Berlin (about US\$9000) and the Ankara (about US\$5000) proceedings to World Scientific. In 2009 from the London congress about Euro 11,000 remained after having paid the World Scientific bulk order. From the Macao congress about Euro 4000 was transferred early in 2016 by Tao Qian to the society. He has been able to financially support many more participants of the congress than it was possible in the events before 2015.

But all the congresses were organized independently of the ISAAC budget. Only for the Toronto and the Catania congresses in 2003 and 2005 some financial engagement of the society for plenary speakers and some young participants was required. Up to the 2nd congress in Fukuoka and the 10th in Macao all ISAAC awards for young researchers were financed by ISAAC. C.C. Yang had suggested to start the ISAAC Awards for young scientists of age below 40. He had managed to finance 10 awardees at the Fukuoka congress. In Berlin again 10 young mathematicians were decorated. The price was equipped with a certificate, DM 800 supported by Berlin Mathematical Society, Daimler Chrysler, Motorola, and Siemens, and additionally some books provided by Elsevier, Kluwer, Springer, and

World Scientific. Afterwards, the number of awards was reduced to one at most two. At the Macao congress besides one award some Special Mention of Young Scientist, just a certificate for outstanding research work, were given to five candidates. The other congress very successful also from a financial point of view was the London congress. It got financial support from the London Mathematical Society, the IMU, the Engineering and Physics Research Council, the Oxford Centre in Collaborational and Applied Mathematics, the Oxford Centre for Nonlinear Partial Differential Equations, the Bath Institute for Computer Systems, and the Imperial College London (Strategic Fund and Department of Mathematics).

Remarkable is also the funding of the Fukuoka congress from the Commemorative Association for the Japan World Exposition (1970). It served to equip any proceedings contributor who had registered at the congress with a whole set of two proceedings volumes of more than 1600 pages. From the Berlin congress on it became usual that participants had the choice to order the proceedings volume during the registration process. When this habit was given up without notice at the Krakow congress, this caused some irritation.

5 Constitution

For getting ISAAC registered in Delaware, Gilbert had to create a constitution. It has served for several years, but was not very much observed in the first years. Already in the constitution the idea of special interest groups (SIGs) within the ISAAC society was established. In 2003 Man Wah Wong has founded the first SIG on pseudo-differential operators. Because of a discussion in the ISAAC board about representatives of several, in the meantime built, active special interest groups (SIGs) without elections in the board, before and during the 2009 London ISAAC congress, Michael Ruzhansky and Begehr, on request of the board, have adjusted the constitution somehow to what was practiced. The ISAAC community has accepted the new constitution by an electronic voting and it was amended in 2013 just before the 9th congress in Krakow. One regulation in the new constitution proved to be very effective in the sequel. Some of the SIGs had quite some large numbers of members, but only a few of whom were registered ISAAC members. Large enough SIGs are allowed to delegate a representative in the board. But non-ISAAC members in a SIG are only counted once as a SIG member. Afterwards they have to join ISAAC or are not counted again. This rule was applied for the first time in 2015. And because several SIGs wanted to keep their representative in the board, ISAAC enjoyed more new life members than ever within a short period between the 10th International ISAAC Congress in Macao and the following board election at the beginning of 2016.

The constitution is available at the ISAAC home page mathisaac.org.

6 Officers and Board, ISAAC Congresses

Gilbert had served as the founding president until the 3rd International ISAAC Congress in 2001 in Berlin. At the 2nd congress 1999 in Fukuoka organized by Joji Kajiwara the first ISAAC board meeting took place (see the Appendix). According to the minutes of this meeting, besides Gilbert and Begehr, Erwin Brüning, Louis Fishman, Ismael Herrera, Ilpo Laine, Saburo Saitoh, Boris Vainberg, Man Wah Wong, and Yongshi Xu took part. Already at the first Congress in Newark, Delaware not only the site of the next but also the next two congresses were determined as Fukuoka Institute of Technology, Japan, and FU Berlin, Germany, with Kajiwara and Begehr, respectively, as local organizer.

At the 3rd congress the democratic structure, manifested in the constitution, was finally practiced. The open board meeting was preceded by a Member Meeting attended by many congress participants who even were not ISAAC members (see the Attachment). However they could not participate in the voting. Gilbert had stepped down as president and had nominated Begehr as first elected president for the period of 2 years. After his election Begehr suggested Gilbert as an honorary president. The board was in favor. But neither a vice president nor a new secretary was nominated. C.C. Yang continued as the vice president and Begehr served also as secretary. For the board meeting in Berlin Gilbert and Begehr just had appointed some colleagues independently of their membership to ISAAC but they were appealed to become ISAAC members. Attendances on this meeting can be viewed in the respective list of the minutes of the board meeting of the 3rd ISAAC congress in Berlin (see Attachment).

Board members were Grigor Barsegian, Carlos Berenstein, Alain Bourgeat, Erwin Brüning, Victor Burenkov, William Cherry, Christian Constanda, George Csordas, Julii Dubinski, Abduhamid Dzhuraev, Maths Essen, Antonio Fasano, Louis Fishman, Klaus Hackl, Ismael Herrera, Adi Ben Israel, Joji Kajiwara, Ilpo Laine, Irina Lasiecka, Wei Lin, Fon-Che Liu, Rolando Magnanini, Takafumi Murai, Ivan Netuka, John Ryan, Saburou Saitoh, Promarz Tamrazov, Domingo Tarzia, Boris Vainberg, Armand Wirgin, Man Wah Wong, and Yongzhi Xu.

At this meeting it was decided to split the proceedings into two parts, one with just the plenary and some main talks from the sessions published by Kluwer in the ISAAC series and others published by World Scientific.

For the election of a board Zhang had set up an electronic voting system on the ISAAC website. This led to the first democratically elected ISAAC Board consisting of Heinrich Begehr (President), Alain Bourgeat, Victor Burenkov, Julii Dubinskii, Robert Gilbert (Honorary President), Joji Kajiwara, Ilpo Laine, Michael Reissig, John Ryan, Saburou Saitoh, and Man Wah Wong.

ISAAC still had very few members. The main task in the following years was to recruit members. Only with a certain number of members the society would start to develop itself. Life members, just paying a certain amount only once at the beginning of membership was attractive as well for the members as for the society. At first the fee was US\$200 later after beginning of 2010 Euro 300. Such an amount



Congress Photo by A. Begehr Berlin 2001

is not very much for people in countries with a strong economy; but the society could collect a bigger amount at a moment while the budget still was very low. For many candidates however, this amount was not affordable because of the economy in their countries. Many of those colleagues were interested in ISAAC and their fees were waived or reduced. After a few years ISAAC counted over 100 life members while the regular annual, as “paid” members listed, ones never were more than 20 at the same time.

In 2003 the 4th congress was held at York University in Toronto, organized by Man Wah Wong. This 4th ISAAC congress was hit by SARS. Because of this disease many scientists refused to participate. While in the preceding Berlin congress there almost 40 sessions, in Toronto there were just 15 sessions. In the minutes of the Toronto board meeting ISAAC is reported to have, besides 1 honorary member, 54 life members, 44 of which had joined after 2001, and 16 paid members. Begehr was reelected as president. At the board meeting were present Begehr, Victor Burenkov, Gilbert, Ilpo Laine, Michael Reissig, Saburo Saitoh, M.W. Wong, and C.C. Yang.

The board election after the 2003 congress took place in two separate ballots. As well three vice presidents were elected, Erwin Brüning for Africa, Man Wah Wong for America, and C.C. Yang for Asia, and Victor Burenkov, Massimo Lanza de Cristoforis, Ilpo Laine, Michael Reissig, John Ryan, Saburo Saitoh, and Masahiro Yamamoto as board members. Additionally, Gilbert as the Honorary President belonged to the board. This board elected the next president at the congress in Catania in 2005. By the regulation of the constitution the president may only once be reelected. ISAAC should develop as an international society dominated neither by some person nor by a group. Man Wah Wong was elected and served for the next 4 years. The reelection of presidents became a habit in the following years.

New vice presidents were determined by electronic election, namely Victor Burenkov replacing M.W. Wong, Saburo Saitoh, and Erwin Brüning. Begehr and Zhang were confirmed as secretary and treasurer and as webmaster and secretary, respectively. Besides the officers members of the board were for the board 2006



Lee Lorch, decoration as honorary ISAAC member V. Burenkov, H. Begehr photo by R.P Gilbert Toronto 2003

to 2008: Okay Celebi, Anatoly Kilbas, Massimo Lanza de Cristoforis, Michael Reissig, Luigi Rodino, Bert-Wolfgang Schulze, Joachim Toft.

The decision for the site of the following congress had been taken already in the year before the Toronto congress at the “International Conference to Celebrate Robert Pertsch Gilbert’s 70th Birthday” at CAES du CNRS in Fréjus, France, on “Acoustics, Mechanics, and the Related Topics of Mathematical Analysis” organized by Armand Wirgin from June 18 to 22, 2002.

Franco Nicolosi had been participating and was enthusiastic to organize the ISAAC congress after the Toronto one already in 2004. But ISAAC did not give in and did not change the congress period. Probably Franco had to postpone his retirement at the University of Catania in order to run the ISAAC congress.

There were no changes of officers at the Ankara congress in 2007 which was organized by Okay Celebi. As representatives in the board of the SIG pseudo-differential operators were Luigi Rodino and Bert-Wolfgang Schulze, for the SIG



M.W. Wong, opening speech of president Ankara 2007



A. Wirgin, R.P. Gilbert CNRS-Marseille, Fréjus 2002



Franco Nicolosi, 70th birthday conference Catania 2009

special functions and reproducing kernels Alain Berlinet and Anatoly Kilbas were nominated. Seven Board members were elected electronically: Bogdan Bojarski, Okay Celebi, Massimo Lanza de Cristoforis, Michael Reissig, John Ryan, Joachim Toft, Masahiro Yamamoto.



O.A. Celebi, heading towards the opening speech Ankara 2007



H.T. Kaptanoglu, R.P. Gilbert, T. Shaposhnikova, V. Maz'ya Ankara 2007



M. Ruzhansky, ISAAC awardee 2007, session talk Ankara 2007

In London 2009 a successor of M.W. Wong had to be chosen. There was an exciting board meeting. Two groups supporting different candidates were labeled. While one group wanted to elect Luigi Rodino, a member from Wong's SIG, the

other just aimed for a change to another subgroup. After all Michael Ruzhansky, also from the pseudo-differential operators group, was elected.

He was the local organizer of the 9th ISAAC congress in London, which was very well planned and held. Vice presidents were elected for the next 2 years by electronic voting: Victor Burenkow for Europe and Africa, Yongzhi Steve Xu for America, Masahiro Yamamoto for Asia. As the former president Man Wah Wong became board member by invitation. Moreover, eight representatives of six SIGs were delegated so that only five members could be elected by the general members. Begehr and Zhang were confirmed in their positions. But Zhang just wanted to be the webmaster without also being secretary. The new regulation for filling the board seats said that larger SIGs may delegate two members, smaller ones just one. Larger SIGs were in 2009 the pseudo-differential operators and the partial differential equations groups. The total number of board members including the officers is 20. The honorary president, Gilbert, is counted as an officer. The five elected board members were Bogdan Bojarski, Okay Celebi, Massimo Lanza de Cristoforis, Michael Reissig, and Joachim Toft. The six SIG representatives were Luigi Rodino and Bert-Wolfgang Schulze for pseudo-differential operators, Mitsuro Sugimoto and Daniele Del Santo for partial differential equations, Michael Oberguggenberger for generalized functions, Sergei Rogosin for complex analysis, Juri Rappoport for integral transforms and applications, and Saburo Saitoh for reproducing kernels.



Congress Dinner, M. Ruzhansky, main organizer, with wife, H. Begehr, next generation London 2009

As Begehr had pointed out, ISAAC was not following the rules from the constitution. Therefore at the board meeting of the Moscow congress it was agreed upon a reform of the constitution to be worked out by the president and the secretary before the next congress.



Opening Ceremony, V. Burenkov, main organizer Moscow 2011



Group on stairs to Main Lecture Hall Moscow 2011



Excursion on Moscow River V. Burenkov, P.D. Lamberti, M. Lanza de Cristoforis, A. Mohammed, S. Bernstein, unknown, unknown, F. Sommen Moscow 2011

This was done before the 2013 Krakow congress organized by Vladimir Mityushev. The new constitution was accepted by electronically voting. Fifty-one members have voted, 47 in favor, 1 opposed, 3 abstained. The constitution was put on the home page and is effective since August 5, 2013. Vladimir Mityushev explained that by Polish law it will not be possible to transfer to ISAAC money from collected congress fees. He offered to use the amount to build up a new ISAAC home page at the Pedagogical University in Krakow. This was accepted by the board and in Macao 2015 confirmed where V. Mityushev had explained the progress in building up this site, isaacmath.org.

According to the new constitution a new president and just one vice president were elected in Krakow. Luigi Rodino became president and Michael Reissig vice president. Begeh was acclaimed as secretary and treasurer. Zhang is still webmaster until the new home page will work.

Michael Reissig had suggested to start an ISAAC newsletter to increase the contact within the society. Four have appeared until the following congress in 2015 at the University of Macau in Macao. This was ISAAC congress no. 10 organized by Tao Qian.



Michael Ruzhansky, opening speech of president Krakow 2013



Vladimir Mityushev, session talk of local organizer Krakow 2013

The board, according to the new regulation, consists besides the honorary president, the president, the vice president, the past president, secretary and treasurer, webmaster, local organizer of the next congress, just one representative of each active SIG and of elected members up to altogether 21. For the period 2014–2016 the SIG representatives are Man Wah Wong for pseudo-differential operators, Mitsuro Sugimoto for pdes, Stevan Pilipovic for generalized functions, Sergei Rogosin for complex analysis, Yuri Rappoport for integral transforms and reproducing kernels, Irene Sabadini for Clifford and quaternionic analysis, Anatoly Golberg for complex variables and potential theory, and Tynysbek Kalmenov for spectral analysis and bvps. The seven elected members are Okay Celebi, Massimo Lanza de Cristoforis, Michael Oberguggenberger, Joachim Toft, Ville Turunen, Masahiro Yamamoto, and Jens Wirth.



Board Meeting, Krakow 2013



Luigi Rodino, speech as newly elected President Closing Ceremony, Krakow 2013

This board elected the new officers in Macao. Luigi Rodino was reelected; Joachim Toft became the vice president after Michael Reissig had stepped down. Begehr was elected as secretary and treasurer. The next local congress organizer is Joachim Toft. His Linnäus University in Växjö will host the 11th International ISAAC Congress in 2017. Because he is also the vice president this time eight board members will be elected at the beginning of 2016.



Tao Qian getting up to present Macao as next congress site Krakow 2013



Tao Qian Opening Speech, Alan McIntosh First Plenary Lecture Macao 2015

Unfortunately the home pages of the congresses disappear after a while as the universities close them down. For the Berlin, Toronto, and Catania congresses however are the abstracts still available, as the AMCA service from Toronto was used for these three congresses (see <http://at.yorku.ca/cgi-bin/amca/submit/cahk-01>).

Abstracts for the 3rd congress are <http://at.yorku.ca/c/a/h/k/01.htm>, for the 4th congress <http://at.yorku.ca/c/a/k/u/01.htm>, and for the 5th one <http://at.yorku.ca/c/>



Audience During Plenary Talk of L. Cohen Macao 2015



ISAAC Special Mention Award Decoration by L. Rodino and M. Reissig Macao 2015



J. Toft Photo by M. Ruzhansky in Matsumoto, Japan, February 2016 discussing the 2017 ISAAC Congress

[a/p/g/01.htm](#). Later congresses saved the fee for this service, but the abstracts are not available any more on the Internet. Some rudimental home page for the 4th and the 5th congress are still available via link from the AMCA page <http://www.math.yorku.ca/isaac03/>, and the AMCA page <http://mathisaac.org/cs/isaac/c/05/a>, respectively. But on the ISAAC home pages, mathisaac.org, the websites of most of the congresses are still available. Zhang has reconstructed the one for Delaware. No home pages are there any more from Fukuoka, Berlin, Ankara, and Moscow.

The ISAAC congresses are held in sessions. Between 20 and 30 sessions are organized on varying subjects. The Delaware congress had 25 sessions. At the Fukuoka congress one session with the title “Special Session” organized by Michael Reissig presided a meeting on the occasion of Begehr’s 60th birthday. Six talks were presented: R.P. Gilbert (About the person H. Begehr), Ju. Duinskij (About Begehr’s results in the theory of boundary value problems in \mathbb{C}^n), W. Spröbig (On hypercomplex boundary value problems in H. Begehr’s work), Xing Li (Complex analytic methods in mechanics), A. Cialdea (Contributions of H. Begehr to the theory of Hele-Shaw flows), M. Reissig (Contribution of H. Begehr to the abstract Cauchy-Kovalevsky theory).

The number of plenary speakers of the ISAAC congresses is 10 to 12. The first plenary talk was delivered by H. Begehr on June 3, 1997, 8:45–9:45 on Riemann Hilbert Boundary Value Problems in \mathbb{C}^n .

Only one of the plenary speakers was invited twice: Saburo Saitoh was one at the Berlin and at the Macao congress. The plenary talks at the Berlin congress were video-recorded. The diskettes are still in Begehr’s hands and can occasionally be shown at some later ISAAC congress.



H. Begehr's 60th Birthday Party, Photo E. Wegert Fukuoka 1999

As an international scientific society ISAAC is well equipped with analysts from a large group of countries representing the major fields in analysis, its applications, and computation. But some geographic areas such as South America and Australia are not adequately present and further scientific spreading would be favorable. Also ISAAC has not yet managed to organize congresses there. ISAAC is overly dominated by Europeans and mainly has its meetings there. ISAAC needs to move around and to widen its membership more internationally.

7 Special Interest Groups (SIGs)

As was pointed out earlier already, from the very beginning of ISAAC, Gilbert had fixed the idea of special interest groups within the society for particular activities such as workshops, local conferences etc. in the constitution. There he had listed as examples Approximation Theory, Function Theoretic Methods in Partial Differential Equations, Asymptotics and Homogenization, Free and Moving Boundary Problems, Inverse Problems and Control Theory, and Symbolic Computation and Analysis, but none was really organized until Man Wah Wang has efficiently created the SIG for pseudo-differential operators on 15. 09. 2003. Before only some people in Function Theoretic Methods in Partial Differential Equations had developed some activities in organizing small conferences and workshops mainly the ones in 1998 and 2004 at METU in Ankara organized by Okay Celebi, Gilbert, Begehr,

and Wolfgang Tutschke and one in 2002 in connection with a Nato Advanced Research Workshop organized by Grigor Barsegian, and Begehr, and the ISAAC Conference on Complex Analysis, Partial Differential Equations, and Mechanics of Continua dedicated to the Centenary of Ilia Vekua at Tbilisi State University in April 2007 organized by George Jaiani. But the very first ISAAC activity was the Graz conference on generalized analytic functions in honor of Gilbert's 65th birthday organized mainly by Wolfgang Tutschke a few months before the Delaware ISAAC congress.

It was then Man Wah Wong who had motivated many colleagues in joining this SIG and also ISAAC in connection with the Toronto congress. Man Wah Wong became ISAAC president, Michael Ruzhansky, successor of M.W. Wong as president from 2009 to 2013, and Luigi Rodino, president since 2013, and one is vice presidents right now since 2015, Joachim Toft. Moreover, Wong had founded a book series "Pseudo-Differential Operators, Theory and Applications" published with Springer-Birkhäuser. The contributions to the ISAAC congresses from the sessions on pseudo-differential operators are since 2003 published in Gohberg's Birkhäuser series "Operator Theory: Advances and Applications" where also proceedings of other conferences of this SIG are published; see the site of the group <http://www.math.yorku.ca/IGPDO/>, e.g., from the ISAAC home page mathisaac.org.

Several SIGs followed and at the end of 2015 there are altogether nine SIGs. Very active ones are also the SIG on partial differential equations, and the SIG on generalized functions, the SIG on Clifford and quaternionic analysis. The two SIGs founded by Saburo Saitoh on reproducing kernels and on integral transforms and applications are even older than the pseudo-differential operator group. They had organized a conference "Applications of analytic extensions" in January 2000 at the Research Institute for Mathematical Sciences at the Kyoto University. Later both groups merged to the SIG integral transforms and reproducing kernels. Other SIGs are on inverse problems and industrial mathematics, on complex analysis, on complex variables and potential theory, and finally the youngest one on spectral analysis and boundary value problems.

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 5. G.G. Gundersen, Professor Yang Lo: Honorary Member of ISAAC, *New Trends in Analysis and Interdisciplinary Applications*, ed. by P. Dang, M. Ku, T. Qian, L. Rodino (Birkhäuser, Basel, 2017, xi–xii)

Appendix

1. List of ISAAC Presidents

Robert Pertsch Gilbert, Founding President, 1996–2001,
 Heinrich Begehr, 2001–2005,
 Man Wah Wong, 2005–2009,
 Michael Ruzhansky, 2009–2013,
 Luigi Rodino, 2013–2017.

2. List of International ISAAC Congresses

Newark, Delaware, USA, 03.–07. 06. 1997 (R.P. Gilbert; S. Zhang)
 Fukuoka, Japan, 16.–21. 08. 1999 (J. Kajiwara)
 Berlin, Germany, 20.–25. 08. 2001 (H. Begehr)
 Toronto, Canada, 11.–16. 08. 2003 (M.W. Wong)
 Catania, Italy, 25.–30. 07. 2005 (F. Nicolosi)
 Ankara, Turkey, 13.–18. 08. 2007 (A.O. Çelebi)
 London, GB, 13.–18. 08. 2007 (M. Ruzhansky; J. Wirth)
 Moscow, Russia, 22.–27. 08. 2011 (V. Burenkov)
 Krakow, Poland, 05.–09. 08. 2013 (V.V. Mityushev)
 Macao, China, 03.–08. 08. 2015 (T. Qian)
 Växjö, Sweden, 14.–18. 08. 2017 (J. Toft)

3. List of ISAAC Supported Conferences

Generalized Analytic Functions—Theory and Applications, on the occasion of the 65th anniversary of R.P. Gilbert, 06.–10. 01. 1997, Technical University of Graz, Austria,
 Workshop on Recent Trends in Complex Methods for Partial Differential Equations, 06.–10. 06. 1998, Middle East Technical University, Ankara, Turkey,
 Applications of Analytic Extensions, 11.–13. 01. 2000, Research Institute for Mathematical Sciences, Kyoto University, Kyoto, Japan,
 Complex Analysis, Differential Equations and Related Topics, devoted to the memory of Professor Artashes Shahinyan, 17.–21. 09. 2002, in union with the NATO Advanced Research Workshop Topics in Analysis and its Applications, 22.–25. 09. 2002, Yerevan, Armenia,
 Workshop on Recent Trends in Applied Complex Analysis, 01.–05. 06. 2004, Middle East Technical University, Ankara, Turkey,