



Annual Report of the International Association of Meteorology and Atmospheric Sciences (IAMAS) 2022

www.IAMAS.org

Submitted by Steven A. Ackerman, IAMAS Secretary-General

Introduction

IAMAS is a research association of the International Union of Geodesy and Geophysics (IUGG) that focuses on all aspects of the gaseous envelope around the Earth and other planets. The main work is conducted, coordinated, and communicated through IAMAS's 10 International Commissions (IC), which, in alphabetical order, are the:

- International Commission on Atmospheric Chemistry and Global Pollution (iCACGP),
- International Commission on Atmospheric Electricity (ICAE),
- International Commission on Climate (ICCL),
- International Commission on Clouds and Precipitation (ICCP) including the Committee on Nucleation and Atmospheric Aerosols (CNAAs),
- International Commission on Dynamical Meteorology (ICDM),
- International Commission on the Middle Atmosphere (ICMA),
- International Commission on Planetary Atmospheres and their Evolution (ICPAE),
- International Commission on Polar Meteorology (ICPM),
- International Ozone Commission (IOC), and
- International Radiation Commission (IRC).

All the international commissions, and IAMAS as a whole, play a leading role in global coordination, communication and discussion of the latest research through organizing and participating in a wide range of scientific meetings that are open to all scientists.

Administration and strategic planning

i) IAMAS Bureau Meetings

Regular administrative meetings have all been held virtually, as a result of the geographic diversity of the bureau. Planning for the IUGG meeting in Berlin 2023 has been a focus of these activities.

ii) Improving the engagement of early career scientists in IAMAS

An IAMAS goal is to engage early career scientists in our activities. IAMAS now has an early career committee (<https://www.iamas.org/ecs/>) to advocate for and build a community

among this critical group. In addition to the committee, the chair of the committee (an early-career scientist) sits on the IAMAS Bureau, with the same responsibilities as other IAMAS Bureau members (see <http://iamas.org/bureau/>). The term of appointment is two years. Dr. Jing Li of Peking University, China currently serves in this role, helping to promote the activities of IAMAS and its commissions amongst the next generation of atmospheric scientists. Dr. Sarah Perkins-Kirkpatrick, from Climate Change Research Centre at UNSW, is vice-chair and collaborates and assists Dr. Li in IAMAS early career scientist activities.

In addition, the commissions are encouraged to bring ECSs into their membership and management groups to ensure that the views and requirements of the next generation of scientists are considered.

iii) Funding

As with last year, the pandemic led to many meetings and conferences moving to virtual formats or postponing to a later date. Funds approved for commission workshops and meetings, were approved for use next year.

We have legally incorporated IAMAS in the USA and acquired a not-for-profit status in the US. Following that designation, we set up a bank account in the USA to facilitate the distribution of IAMAS funds to our commissions in support of their approved scientific activities; the account in the USA was opened in August 2022. Funds were then moved from the IAMAS bank account in Germany to the USA. A transfer of funds from Germany to US was made in October 2022, in the amount of \$207,727.63. We express our appreciation to Hans Volkert and John Burrows for their long-term support of the IAMAS bank account in Germany.

IAMAS provided \$1000 in support of the 2022 iCACGP-IGAC Joint Conference in Manchester, UK.

Activities

Planning for the IUGG General Assembly in Berlin, Germany during 11-20 July 2023 occurred throughout this year. There are no plans for this meeting to include a virtual format.

Recent Awards

- 1) *International Science Council Fellow*: The International Science Council (ISC) appointed new Fellows in recognition of their outstanding contributions to promoting science as a global public good. Among them is Guoxiong Wu (China), who in addition to his other accomplishments also served as IAMAS President (2007-2011).
- 2) *IUGG Union Lecture*: Congratulations to Dr. Akkihebbal Ramaiah Ravishankara, University Distinguished Professor in the Departments of Chemistry and Atmospheric Science at Colorado State University, IAMAS nominee to give an IUGG Union Lecture. 2023
- 3) *IUGG Union Medal*: Congratulations to Athena Coustenis (France), IAMAS President (2011-2015), who was awarded the Jean Dominique Cassini Medal.
- 4) *IUGG Early Career Scientist*: Ten scientists have been awarded the IUGG Early Career Scientist Awards 2023 for their outstanding research in Earth and space sciences and for their international research cooperation. Thanks to Keith Alverson (Canada; IAMAS) for serving on the selection committee. The atmospheric science winners are Patrick Hupe and Christina Karamperidou. The IUGG Early Career Scientist Awards 2023 will be presented during the Award Ceremony of the IUGG General Assembly in Berlin,

Germany.

Activities of the Early Career Scientist (ECS) committee

The IAMAS ECS committee was officially formed in January 2021, with 10 members representing the 10 IAMAS commissions. The main activities in 2022 included:

- Continued to hold ECS webinar series:
 - Qingxiang Li, Feb 16, 2022, Differences in persistence explain the unevenness of warming at continental scales
 - Marlene Kretschmer, Mar 25, 2022, The plausible role of Barents and Kara sea ice loss in driving future polar vortex changes
 - Carina Schumann, Apr 26, 2022, Lightning in slow motion: The Johannesburg Lightning Research Laboratory
 - David Mikolajczyk, May 20, 2022, Regional Warming Event in Winter on the Ross Ice Shelf, Antarctica as Observed by UW-Madison Automatic Weather Stations
 - Lei Bi, Jun 24, 2022, From Particle Optics to Remote Sensing, Weather and Climate Studies: Physical Models, Computational Electrodynamics, and Machine Learning
- The annual ECS event during the week of 4 July 2022;
- Continued to maintain the Twitter account and the ECS YouTube channel;
- Connected with the IUGG ECS representatives to plan for the ECS event in Berlin;
- Co-hosted the IYBSSD online conference with Chinese Academy of Sciences;
- Started a regional ECS working group in China, and hosted three webinars;

Sonja Behnke left the ECS committee due to other work commitments, with Rubin Jiang of China replacing her.

Highlights from the IAMAS International Commissions

iCACGP (<http://www.icacgp.org/>)

During 2022, the iCACGP met virtually every two months to discuss business, and as international travel started to ramp up in 2022, the iCACGP met face-to-face for the first time since 2019. This meeting took place immediately before the 15th iCACGP Quadrennial Symposium & 17th IGAC Science Conference in Manchester 2022. One of the main topics of discussion was the nomination of the 2023-2027 ICACGP members and the election of officers. Mary Barth (USA) was elected as the incoming President, with support from 4 Vice-Presidents (Christian George – France, Hiroshi Tanimoto-Japan, Judith Hoelzemann- Brazil and Hugh Coe UK). The new commission will commence in March 2023.

The 15th iCACGP Quadrennial Symposium & 17th IGAC Science Conference in Manchester was a hybrid meeting with more 400 participants from 38 countries (124 online and 278 in person) including 131 Early Career Researchers. The conference was preceded by the Early Career Short Course, a 3-day intensive training course that included topics such as communication skill development and exploring the science-policy landscape. IAMAS provided \$1000 in support of this symposium.

The Paul J. Crutzen Award for Early Career Scientists 2022 was awarded to Dr Sarah S. Petters from Aarhus University Denmark in recognition of her contribution to a better understanding of aerosol chemical composition, phase state and aerosol-water interactions. The award was presented at the 2022 iCACGP-IGAC Joint Conference in Manchester, UK.



Figure 1. ICAGP Vice- President Christian George and Dr Sarah Petters receiving the Paul J. Crutzen Award for Early Career Scientists 2022.

As a follow up to the iCACGP convened the session “The Atmosphere - the “forgotten” domain in the Sustainable Development Goals?” at the Sustainability Research & Innovation Congress 2021 where the importance of the atmosphere in the UNSDGs (United Nations Sustainability Development Group) was discussed, ICACGP published a letter in *Science* titled [Atmospheric goals for sustainable development | Science](#) that to date has been downloaded 749 times.

There has been slow progress on the transfer of the iCACGP website to the IAMAS hosted website.

Planning continued for the IUGG conference in Berlin 2023; iCACGP will host M27 Atmospheric Chemistry in the Anthropocene: From the Urban to Global Scales and cohost JH04 Anthropocene: Perspectives From and Within. Planning has also commenced for the ICACGP/IGAC Atmospheric Chemistry Open Science Conference to take place in Malaysia in September 2024.

ICAE (<https://www.iamas.org/icae/>)

- 1) The 17th International Conference on Atmospheric Electricity was held successfully in Tel-Aviv, Israel, between 19-24 June 2022. The venue at Tel-Aviv University's Porter School for Environmental Science hosted 120 participants from 30 countries. A total of 240 papers were initially submitted to the conference, and a 5-day scientific program of oral and poster sessions was created by the Local Organizing Committee after accepting reviews and recommendations made by the members of the ICAE Executive Committee. However, due to the evolving conditions of the COVID-19 pandemic and the difficulties it caused to international travel, as well as the restrictions caused by the Russia-Ukraine war, many papers and posters were withdrawn or cancelled. The final program contained 56 oral talks and 48 posters, arranged in 4 days. The social program included a half-day trip to the old city of Jerusalem and a Conference Dinner that included a dance competition between 4 teams of ICAE scientists and students in different music styles.

- 2) ICAE organized two Executive Committee member meetings on 19 Jun and 23 Jun during the 17th International Conference on Atmospheric Electricity, and a follow up meeting on 27 July.
 - a) The ICAE Officers, three new members and two honorary members have been elected after full discussions and voting.
 - Xiushu Qie (President) and Weitao Lyu (Secretary) will continue to serve as ICAE officers for one additional period of 4 years.
 - Yoav Yair, Amitabh Nag, and Yasuhide Hobara have been elected as ICAE new members from 9 candidates.
 - Vladimir Rakov and Clive Saunders have been elected as ICAE Honorary members.
 - b) Barcelona, Spain, among 3 candidate cities, has been selected as the venue of the next ICAE conference (18th conference) which will be held in 2026.
- 3) The bylaw of ICAE, which was formed in 2006, was updated during the General Assemblies of ICAE EC in 2022, as distributed at <https://www.iamas.org/icae/about/>.
- 4) Rubin Jiang has been suggested and appointed to succeed as the ICAE representative at the IAMAS ECS committee. Sonja Behnke, the first ICAE representative at IAMAS ECS (Early Career Scientist) committee, has been recently elected as president for ASE in AGU.
- 5) We completed the process of moving the ICAE website to <https://www.iamas.org/icae/>.
- 6) We published two issues of newsletters online in 2022. We collected complete issues of ICAE newsletters and all issues can now be accessed through the ICAE website.
- 7) We conducted routine maintenance of the ICAE colleague mailing list.

Plans for 2023

- 1) Organize three ICAE sessions for 28th IUGG.
- 2) Issue two newsletters, one in spring and one in the fall.
- 3) Maintain the website for ICAE.
- 4) Update the ICAE colleague mailing list as needed.

ICCL (<http://www.iccl-iamas.net/>)

Activities in 2022

1. Prepared 11 symposium proposals for the 28th IUGG2023 in Berlin, as listed below:
 - a. M02 Dynamics and Variability of the Warming Hole(s) in the Climate System, Conveners: Léon Chafik (Sweden), Mojib Latif (Germany)
 - b. M03 Climate Extremes in the Atmosphere-Land-Ocean System: Physical Processes, Predictability, Impacts and Adaptation, Conveners: Jules Kajtar (Australia), Nicolas Freychet (UK), Eunice Lo (UK), Vikki Thompson (UK), Mat Collins (UK), Neil Holbrook (Australia)
 - c. M04 Past Climate Changes and Their Relevance for the Future, Conveners: Qiuzhen Yin (Belgium), André Paul (Germany), Anne de Vernal (Canada), Jerry McManus (USA), Emilie Capron (Denmark), Ayako Abe-Ouchi (Japan)
 - d. M05 Atmosphere-Ocean-Ice Interactions: Physical, Biogeochemical and Biological Processes in the Ross Sea, Conveners: Zhaomin Wang (China), Walker Smith (USA), Paola Rivaro (Italy), Jisoo Park (South Korea), Mike Williams (New Zealand)
 - e. M06 Monsoon Systems in Rapid and Intensifying Climate Change and Their Role in Extreme Events, Conveners: Jianping Li (China), V. Krishnamurthy (USA), Andrew Turner (UK), Bin Wang (USA), E. Hugo Berbery (USA), Jun Matsumoto (Japan), Kyun-Ja Ha (South Korea), R. Krishnan (India), Fred Kucharski (Italy)
 - f. M07 Earth System Response to Solar Radiation Modification: Modeling, Impacts and Uncertainties, Conveners: Govindasamy Bala (India), Hauke Schmidt (Germany), Long Cao (China), Simone Tilmes (USA), John Moore (China, Finland), Michael MacCracken (USA)

- g. M08 Variability and Near-Term Predictability of the Antarctic Climate System, Conveners: Tom Bracegirdle (UK), Zhaomin Wang (China), Irina Gorodetskaya (Portugal), Erik Behrens (New Zealand)
 - h. M09 Geosciences for Sustainable Development (Merged with Union Symposium), Conveners: Keith Alverson (Canada), Tom Beer (Australia), Jianping Li (China), Tonie van Dam (Luxenburg)
 - i. M10 El Niño/Southern Oscillation and its Regional and Global Impacts, Conveners: Fei-Fei Jin (USA), Wenju Cai (Australia), Jianping Li (China), Soon-Il An (South Korea)
 - j. JM01 Recent Advances in Regional Climate Modelling (IAMAS, IACS, IAHS), Conveners: Tomas Halenka (Czech Republic, IAMAS), Sven Kotlarski (Switzerland, IACS), Erika Coppola (Italy, IAHS)
 - k. JM05 Earth System Models: Assessing the Earth System's State and Fate From Regional to Planetary Scales (IAMAS, IAHS, IACS, IAPSO, IAVCEI?), Convener(s): François Massonnet (Belgium, IAMAS), Sophie Nowicki (USA, IACS), Richard Petrone (Canada, IAHS), Anna von der Heydt (Netherlands, IAPSO)
2. Organized two sessions for EGU 2022 (April 3-8, 2022) of two sessions: "Interglacial diversity" and "Monsoon systems in a changing climate: past, present and future".
 3. Special Issues: "Global monsoonal systems during the last glacial-interglacial cycle" in Quaternary Science Reviews, "Paleoclimate modelling" in Quaternary Sciences, and "Cenozoic climate change in Asia in honor of Prof. Zhengtang Guo" in Global and Planetary Change.

Plans in 2023:

- Organize sessions and participate in the IUGG meeting in Berlin in July.
- Nomination of new ICCL members as needed.

ICCP (<https://www.iamas.org/iccp/>)

After holding the International Conference on Clouds and Precipitation virtually in 2021, the activities of the ICCP have not been as numerous. Nevertheless, the ICCP has had some important undertakings in 2022, including the following:

- 1) The ICCP has established a monthly journal club meeting, where cloud scientists from around the world give virtual lectures on important topics related to cloud physics. Co-organized by Martina Kraemer, Odran Sourdeval, and Greg McFarquhar, the speakers in 2022 have included Greg McFarquhar, Irene Bartolome-Garcia, Eshkol Eytan Weizmann, Jingyi Chen, Sylvia Sullivan, and Andrew Dzambo. This activity is continuing in 2023 with monthly presentations.
- 2) The ICCP has undertaken an active role in planning sessions for the 2023 IUGG/IAMAS meeting in Berlin. The following sessions are sponsored or co-sponsored by the ICCP: Cloud and Precipitation Studies; Cloud-Radiative Interactions; Dynamics and Microphysics of Moist Convection; Cloud Nucleation Studies; Weather Modification and Small Scale Geoengineering: Theory, Practice and Technology; and Weather and Climate Extremes: Understanding, Modeling, Prediction and Impacts.
- 3) With the Johannes-Gutenberg University (JGU), the ICCP will be co-sponsoring a workshop on "Clouds containing ice particles" from 23 to 26 July 2023 in Mainz. The intent of the workshop is to discuss all aspects of cirrus and mixed-phase clouds, the least understood cloud type, that contributes significantly to uncertainty in climate prediction. Topics to be covered include in-situ and remote sensing observations of clouds and their modelling on all scales.
- 4) The Cloud physics lectures conducted by the IITM in Pune have continued in 2022. Speakers in 2022 were as follows: Jiwen Fan, Alexander Khain, Heike Wex, Mary Selvam, Sanjay Sharma, Paul Field, Shin-ichiro Shima, Kirti Chandra Sahu, Vaughan Phillips, Rachel Albrecht and Odran Sourdeval.

- 5) The ICCP has been meeting virtually every 2 to 3 months during 2022 and had an in person meeting at the American Meteorological Society Conference in Cloud Physics at Madison, Wisconsin. Topics of discussion included ways to enhance international collaboration, planning for future topical meetings and the next ICCP conference, and ways to enhance diversity, equity and inclusion.
- 6) The ICCP has begun planning for the next ICCP conference that will take place 14 to 19 July 2024 in Jeju Island, South Korea. Preliminary discussions have centered around what topics should be included at the meeting, abstract review criteria, and arranging for a visit to the conference facilities that will take place in late summer 2023.

The ICCP is happy to recognize that Luis Ladino recently received the very prestigious Marcos Moshinsky award for young scientists to support a project that he proposed. This award is usually given to someone working in a more classical branch of physics so it is of special significance that Luis received this recognition.

ICDM (<https://www.iamas.org/icdm/>)

ICDM developed ten symposia jointly with another IAMAS commission and three with another association (IAPSO) for the IUGG General Assembly in Berlin in 2023.

In 2022, ICDM members organized a storm tracks workshop on Ile d'Oleron in France with partial funds from IAMAS/IUGG. The workshop attracted a total of around 50 international participants and was very well received.

ICMA (<https://www.iamas.org/icma/>)

The ICMA website was restructured and moved to IAMAS website.

Assembly symposia

- Organizing and preparing for the “Middle Atmosphere Science Symposium” at the 2023 IUGG assembly in Berlin.
- Sponsored the 11th International Workshop on Long-Term Changes and Trends in the Atmosphere, 30 May - 3 June 2022.
- Sponsored the 44th COSPAR assembly, Athens, Greece, 16 - 24 July 2022.

Business meetings / Internal affairs

The ICMA business meeting during the IUGG Assembly is planned for Thursday 13 July, 12:00-13:30h.

IO3C (<https://www.io3c.org/>)

IO3C has started preparations for hosting the Quadrennial Ozone Symposium (QOS) in 2024. It will be held in person and virtually in Boulder, CO, USA, July 14-18, 2024. The local organizing committee is being established. The venue costs are being estimated and IO3C will apply for financial support from the IAMAS and IUGG in the upcoming year. The webpage for the QOS 2024 and the announcement will be distributed in April.

The IO3C published a press statement celebrating the International Day for the Preservation of the Ozone Layer (September 16, 2022). This day was proclaimed by the United Nations General Assembly to commemorate the success of the Montreal Protocol on Substances that Deplete the Ozone Layer. The Montreal Protocol established a binding agreement to control the consumption and production of ODSs. These controls are leading to the stratospheric ozone layer's recovery

(<http://www.io3c.org/press-release-international-ozone-commission-35th-anniversary-montreal-protocol-reports-new>).

The WMO/UNEP *Scientific Assessment of Ozone Depletion: 2022* was published in January 2023 (<https://csl.noaa.gov/assessments/ozone/2022/>). This quadrennial science assessment included several results from activities sponsored by the IO3C, including the SPARC LOTUS Activity on Long-term Ozone trends and uncertainties in the lower stratosphere (<https://www.sparc-climate.org/activities/ozone-trends/>).

A joint special issue between Atmospheric Chemistry and Physics and Atmospheric Measurement Techniques journals titled *Atmospheric ozone and related species in the early 2020s: latest results and trends* (https://acp.copernicus.org/articles/special_issue1194.html) has been established for the presentations at the QOS 2021. Currently, there are 25 articles published in ACP and AMT. Several of the research papers published in this issue have contributed to the 2022 Ozone assessment. The submission deadline for the special issue was recently extended to the end of 2023.

IO3C co-sponsored a proposal to SPARC for extension of the LOTUS activity. This activity will focus on updates of the ozone trend analyses, with focus on community research papers contributing to the next Ozone assessment (2026). The proposal was accepted by the SPARC steering committee in March 2023.

IO3C also contributes to the decision making for areas of public data distribution collected by observing networks that focus on the monitoring of ozone and related species. The IO3C has advocated for timely submission and open-access data archival, reprocessing of the Dobson and Brewer ozone historic records with the IO3C approved ozone cross-sections, and ozone records homogenization (i.e. ASOPOS2). IO3C shares information about its activities in the SPARC and NDACC newsletters, in the WMO GAW Ozone and UV Bulletin, and on the IO3C Facebook page.

ICPAE (<https://www.iamas.org/icpae>)

New Bureau officers:

- President: Ann C. Vandaele (Belgian Institute for Space Aeronomy, Belgium)
- Secretary: Yeon Joo Lee (Institute for Basic Science, South Korea)

Monthly ICPAE Webinar 2022, started in Jan and concluded in Dec 2022, was successful (<https://www.iamas.org/icpae/webinar/>).

Highlights:

- The 12 Monthly webinars had 12 speakers, who were invited from 10 countries across the continents.
- There were a total of 226 participants for the 12 webinars (on average, 19 participants per webinar).
- Diverse scientific topics about the atmospheres in the solar system planets and exoplanets.
- There was a 1:1 balance between ECS speakers and Senior speakers.
- Webinar team consists of Yeon Joo Lee, Daniel Yiu Wah Lo, Tao Cai, Ann Carine Vandaele, and Maarten Roos-Serote.

We supported IAMAS ECS activities on July 11th (*IAMAS ECS Special conference*) using the ICPAE Zoom webinar account.

We organized IUGG session M35, Exploration of the Diversity of Planetary Atmospheres: From the Solar System to Exo-Planets (Conveners: Ann Carine Vandaele, Yeon Joo Lee, Nigel Mason)

Our plans include inviting new members and selecting a ICPAE ECS representative.

ICPM (<https://www.iamas.org/icpm/>)

The International Commission on Polar Meteorology (ICPM) over the past year has worked on several activities described below.

The ICPM-endorsed 17th WAMC (Workshop on Antarctic Meteorology and Climate) was hosted by the University of Wisconsin-Madison on August 4 and 5, 2022. It was a hybrid meeting. The WAMC organizers thank IAMAS for their financial support. A manuscript about the meeting is nearly finished and will be submitted to the official IAMAS journal *Advances in Atmospheric Sciences* for review and publication. This was followed by the 7th International Year of Polar Prediction – Southern Hemisphere workshop on 6th August. Recordings from the meetings can be found here: <http://amrc.ssec.wisc.edu/meetings/meeting2022/recordings.shtml>

A working group was set up, comprised of ICPM members and an IAMAS past president, to review our statutes. These needed updating to reflect the hybrid way of holding meetings and to review how the voting and member terms were specified. The new statutes were approved by ICPM members and have been passed to the IAMAS bureau for approval.

ICPM continues its involvement with the IAMAS early career initiatives having a representative on the IAMAS Early Career Scientist committee (Lee Welhouse). The ICPM ECR and communications representatives (Jonathan Wille (ICPM ECR) and Amelie Kirchgaessner (social media/comms)) have been active in advertising ICPM activities and advertising postdoc and PhD opportunities in our field. Primarily using our active twitter account (@MetPolarIntl) and mastodon account (@ICPM@fediscience.org). The ICPM webinar series is planned to restart in 2023.

ICPM is involved in convening several sessions at the upcoming IUGG meeting. We have been advertising these through mailing lists and our social media. Conveners are now about to start sorting through the submitted abstracts.

IRC (<http://www.irc-iamas.org/>)

The Quadrennial Symposium of the International Radiation Commission

After two postponements due to the COVID-19 pandemic, the quadrennial International Radiation Symposium (IRS 2022) was held in Thessaloniki, Greece, from 4-8 July 2022. By all accounts, it was a major success. IRS 2022 was organized by the Laboratory of Atmospheric Physics of the Aristotle University of Thessaloniki in partnership with the International Radiation Commission (IRC) of the International Association of Meteorology and Atmospheric Sciences (IAMAS). IRS 2022 was held at the Thessaloniki Concert Hall Convention and Cultural Center. Over 360 scientists from 29 countries participated in the fully in-person symposium, with over 250 oral and 150 poster presentations.

IRS 2022 provided a comprehensive international forum for presenting and discussing recent research achievements and technological developments in atmospheric radiation and related disciplines in the following ten sessions: Topical Union Session: Current Problems in Atmospheric Radiation; Radiative Transfer Theory and Modeling; Particle Radiative Properties; General Remote Sensing; Ground-based Measurements and Field Observations; Radiation Budget and Forcing; Weather, Climate and Environment Applications; Solar UV Radiation; Ocean Optics; and Climate Change in the Mediterranean and Radiative Impacts of a Changing Environment. Internationally recognized senior scientists, young scientists, and students had a unique opportunity to discuss the most current scientific issues, exchange new ideas and establish far-reaching collaborations.

The first three days of IRS 2022 kicked off with keynote addresses presented in the topical union session. On Thursday, the topical union addresses were given by Gold Medal Award recipient Bill Smith (Professor Emeritus, University of Wisconsin-Madison) and Young Scientist Award recipient, Seung-Hee Ham (NASA Langley Research Center). Professor Smith and Dr. Ham were presented their awards at the IRS 2022 Banquet held the previous evening.

Participants of IRS 2022 had the opportunity to visit historical monuments and cultural establishments in Thessaloniki and in other locations in Northern Greece, to enjoy short escapes for swimming at the magnificent beaches of Khalkidhiki and to taste the local gastronomy and wines at the numerous small taverns in the city. For many, IRS 2022 marked the first in-person event they had attended since the start of the pandemic in 2020. The enthusiasm and gratitude from all participants to be finally meeting in person again was proof of the success of the symposium.

Annual Business Meeting

The annual IRC business meeting was held during IRS 2022 on the evening of Tuesday, 5 July 2022. Twenty-seven commissioners were present with an additional eleven members attending virtually. The primary business was the selection of the host for the next International Radiation Symposium (IRS). The current IRC officers and past presidents agreed that the next IRS should occur at its normal cadence in 2024.

The IRC received two worthy bids for IRS 2024, from Lei Bi (Zhejiang University) for Hangzhou, China, and Feng Zhang (Fudan University) Shanghai, China. After presentations of both proposals and questions from commissioners, a vote was taken. The results: IRS 2024 will be hosted in June 2024 at Zhejiang University in Hangzhou. The IRC thanks both Lei Bi and Feng Zhang for their proposals.

The IRC received reports from 10 of its 11 active working groups. It also received a bid for a new working group on Machine Learning in Radiative Transfer and Remote Sensing (MLRTRS) from Feng Zhang (Fudan University). The IRC approved the proposal, bringing the current number of new working groups to 12.

IAMAS EXECUTIVE COMMITTEE 2019-2023

President:	Joyce E. Penner	USA
Vice-Presidents:	John P. Burrows	Germany
	Mary Scholes	South Africa
Past President:	John Turner	UK
Secretary General:	Steven Ackerman	USA
Early Career Scientist:	Jing Li	China
Members at large:	Lisa Alexander	Australia
	Keith Alverson	USA / Japan
	Iracema Cavalcanti	Brazil
	Mu Mu	China
	Michiel R. van den Broeke	Netherlands

IAMAS COMMISSIONS

Atmospheric Chemistry and Global Pollution (iCACGP) www.icacgp.org

President:	Melita Keywood	Australia
Vice-President:	Mary Barth	USA
	Christian George	France
	Stuart Piketh	South Africa
	Tong Zhu	China

Atmospheric Electricity (ICAE) <http://www.icae-iamas.org>

President:	Xiushu Qie	China
Secretary:	Weitao Lyu	China

Climate (ICCL) <http://www.iccl-iamas.net/>

President:	Jianping Li	China
Secretary:	Qiuzhen Yin	Belgium

Clouds and Precipitation (ICCP) <https://www.iamas.org/iccp/>

President:	Greg McFarquhar	USA
Vice-President:	Heike Wex	USA
Secretary/Treasurer:	Martina Kraemer	Mexico

Committee on Nucleation and Atmospheric Aerosols (ICNA) www.icnaa.org

Chair:	Markku Kulmala	Finland
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Dynamic Meteorology (ICDM) <https://www.iamas.org/icdm/>

President:	Thomas Spengler	Norway
Secretary:	Craig Bishop	Australia

Middle Atmosphere (ICMA) <https://www.iamas.org/icma/>

President:	Bernd Funke	Spain
Vice-President:	Natalia Calvo	Spain

Ozone (IO3C) <http://www.io3c.org/>

President:	Sophie Godin-Beekmann	France
Vice-President:	Paul A. Newman	USA
Secretary:	Irina Petropavlovskikh	USA

Planetary Atmospheres and their Evolution (ICPAE) <https://www.iamas.org/icpae>

President:	Feng Tian	China
Vice-President:	Ann Carine Vandaele	Belgium
Secretary:	Yeon Joo Lee	Germany

Polar Meteorology (ICPM) <https://www.iamas.org/icpm/>

President:	Matthew Lazzara	USA
Secretary:	Tracy Moffat-Griffin	UK

Radiation (IRC) www.irc-iamas.org

President:	Peter Pilewskie	USA
Vice-President:	Manfred Wendisch	Germany
Secretary:	Hajime Okamoto	Japan

IAMAS Budget summary 2022

The following is a summary of activity on the IAMAS account in Berlin, German up to their closure on the 8th October 2022 and 30th December 2022.

As with previous years, there are two IAMAS Accounts in 2022 that were with German Banks:
Business-Giro DE29 7001 0080 0031 9148 04 CURRENT ACCOUNT
Business- SparCard DE05 2011 0022 3017 3842 23 SAVINGS ACCOUNT

2022 Activity on Business-Giro DE29 7001 0080 0031 9148 04 CURRENT ACCOUNT

1) 6000 € went to International Radiation Symposium - Alkis Bai.

20.05/23.05.22	SEPA transfer single to Androniki BAI/ SEPA Überw. Einzel Androniki BAI	-6.000,00 €
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IAMAS agreed to provide IRC \$6000 for the 2022 International Radiation Symposium in Greece July 2022. <https://www.irs2022.org/> Thessaloniki Greece 4-8 July 2022

2) Support for ICDM Workshop - Gwendal Rivière CNRS "LMD"

23.05/23.05.22	international credit transfer Agent Comptable du CNRS/ Auslandsüberweisung Agent Comptable du CNRS	-1.884,64 €
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ICDM Workshop \$ 2000 US "storm-track workshop" organization led by Gwendal Rivière CNRS "LMD"

The Laboratoire de Météorologie Dynamique (UMR8539) (LMD) is a CNRS joint research unit, hosted by École polytechnique (X), École Normale Supérieure (ENS) and Sorbonne Université (SU), and is partner of École Nationale des Ponts et Chaussées (ENPC).

3) Support for the 17th International Conference on Atmospheric Electricity (ICAE 2022)

02.05./02.05.22	international credit transfer Target Conferences Ltd/ Auslandsüberweisung Target Conferences Ltd	-2.387,75 €
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<https://www.icae2022.com/about-icae-1>

The 17th International Conference on Atmospheric Electricity (ICAE 2022) conference was held in Tel Aviv, Israel, from June 19-24, 2022.

Colin Price and Yoav Yair were the Co-Chairs of the Local Organizing Committee (LOC)

4) Boardman and Clark lawyer / attorney fees

The IAMAS Bureau agreed to move the bank account out of Germany to the USA. The following was the cost of establishing the bank account in the US.

To set the account up required IAMAS to get a non-profit designation in the US, and Boardman and Clark was the law firm that provided the service.

10.01./10.01.22	international credit transfer Boardman and Clark/ Auslandsüberweisung Boardman and Clark	-2.208,89 €
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30.03./30.03.22	international credit transfer Boardman and Clark/ Auslandsüberweisung Boardman and Clark	-2.178,56 €
03.05./03.05.22	international credit transfer Boardman Clark LLP/ Auslandsüberweisung Boardman Clark LLP	-578,87 €
5) Postbank fees etc.		
30.12./31.12.21	interest/fee/interest/fee/Zinsen/Entg.	-7,40 €
31.01./31.01.22	interest/fee/interest/fee/Zinsen/Entg.	-7,62 €
28.02./28.02.22	interest/fee/interest/fee/Zinsen/Entg.	-7,40 €
31.03./31.03.22	interest/fee/interest/fee/Zinsen/Entg.	-7,84 €
29.04./30.04.22	interest/fee/interest/fee/Zinsen/Entg.	-7,40 €
31.05./31.05.22	interest/fee/interest/fee/Zinsen/Entg.	-8,28 €
30.06./30.06.22	interest/fee/interest/fee/Zinsen/Entg.	-7,40 €
29.07./31.07.22	interest/fee/interest/fee/Zinsen/Entg.	-7,62 €
31.08./31.08.22	interest/fee/interest/fee/Zinsen/Entg.	-7,62 €
30.09./30.09.22	interest/fee/interest/fee/Zinsen/Entg.	-7,40 €

6) New US bank account 26 €

This was a fee to test the transfer from Germany to the newly set up US account with JPMorgan CHASE, it was a test transfer before closing the IAMAS accounts at the Postbank in Germany.

18.08./18.08.22	international credit transfer AC Kerman/ Auslandsüberweisung AC Kerman	-26,00 €
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7) Closure of Postbank Business-Giro DE29 7001 0080 0031 9148 04 and transfer to

As the test transfer successful, we transfer on of the Postbank Business accounts.

06.10./06.10.22	rest balance "VK" account closing GK IAMAS/ Restsaldo VK Kontoauflösung GK IAMAS	-213.597,97 €
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JPMorgan CHASE in USA

Date	Explanation	Amount	Total
August 22, 2022	Account was opened with a deposit of \$20.35 (test transfer from German Bank)	\$20.35	\$20.35
October 17, 2022	Remaining funds in one German account transferred	\$207,727.63	\$207,747.98
October 26, 2022	iCACGP-IGAC Joint Conference in Manchester, UK	\$-1000	\$206,747.98
	2022 Ending balance		\$206,747.98