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Introduction by the new IAMAS President Prof. Andrea I. Flossman

It is a pleasure to write this introduction to the IAMAS e-Newsletter as I start my term as the next President of the association. My scientific interest is focused on clouds, which led me to my initial involvement with IAMAS and the International Commission on Clouds and Precipitation (ICCP) in 1996. Since then, I have held various positions within ICCP, including the Vice-presidency from 2004-2012 and the Presidency from 2012-2021. For my work I was elected “honorary member” (fellow) of IUGG (International Union of Geodesy and Geophysics) in 2015. After rotating off the ICCP Bureau, my involvement with IAMAS continued as I was still acting occasionally as the National Correspondent for France on the IAMAS Executive Committee and in the French national IAMAS chapter.

During this work for IAMAS, with its commissions and its connection to sister associations in IUGG, all constructed around the national science associations, I could not help noticing that this organization had become weakened by numerous competing science structures popping up left and right. They are generally based on organizations of scientific individuals or thematic programs and easily gain visibility as largely funding driven. Their success seems to be accompanied unfortunately by a decrease of the IUGG/IAMAS funding as national science academies/associations use it as an excuse to reduce support. This development in time can threaten the very existence of IAMAS and IUGG, even though currently our assemblies are still well attended.

A crucial part of the scientific politics of IAMAS in the near future will be to communicate and continue to demonstrate the relevance of our association to the atmospheric sciences community and the bodies that fund the Union. I believe that only a structure of disciplinary commissions and a collaboration across commissions and associations will preserve and provide a scientific ecosystem that allows a rapid response to current and emerging urgent problems for society. This must be done in a changing world where it becomes essential to reduce our carbon footprint, and the necessity to reduce travel might be associated with a growing isolation of people and ideas. During the IUGG assembly in Berlin this summer I was elected as the new President of IAMAS and I will work with our Bureau and others within

IAMAS to strengthen our association to face these challenges. The bricks of the work have been developed, we will have to put them together and construct a sustainable future for atmospheric sciences and its communication.

The 28th IUGG General Assembly Berlin, July 2023

IAMAS played a major part in the 28th IUGG General Assembly, which was held at the City Cube conference centre on the outskirts of Berlin, Germany over 11 -20 July 2023. The assembly was a great success, with about 5,000 participants taking part, making it the best attended assembly in the 100-year history of IUGG. There were about 200 association and union symposia over the 10 days involving 3,500 talks and 1,500 posters. There were also many business meetings of the Union, associations, commissions and other groups attending the meeting. There were 900 participants from the IAMAS community, which organised 35 symposia of its own, along with five in conjunction with other associations.



IAMAS held its joint General Assembly and Executive Committee meeting in two parts on 12 and 14 July. These meetings brought together the Bureau and Executive Committee members, along with the Members-at-Large and other interested member of the association.

During the meetings the IAMAS President and Secretary-General gave updates on the activities of the association since the virtual assembly in 2021. The COVID-19 pandemic had continued to cause disruption to the organisation, with many meetings having to be cancelled or conducted virtually. However, it was very gratifying to see such a good attendance at this first in-person assembly since the pandemic. The Secretary-General gave a financial update and noted the healthy financial position of the association. The IAMAS funds were recently transferred to the Chase Bank in the USA to be close to the 2019-2023 Secretary-General who will continue as the Honorary Treasurer for the next 4 years. Reports were also presented by the Commission Presidents who gave updates on recent meetings, changes in the officers and plans for the coming years.

Following an invitation to nominate new IAMAS officers that was issued in late 2022, the following Bureau and Executive Committee members were elected in Berlin:

President 2023 - 2027, Prof. Andrea Flossmann (France)
Secretary-General 2023 - 2027, Dr Keith Alverson (Canada)
Member-at-Large 2023 – 2031, Prof Marilyn Raphael (USA)
Member-at-Large 2023 – 2031, Prof Neil Holbrook (Australia)
Member-at-Large 2023 – 2031, Dr Tirusha Thambiran (South Africa)
Member-at-Large 2023 – 2031, Dr John Turner (UK)

Dr Mu Mu (China) will continue in his role as a MaL until 2027. The Immediate Past President Joyce Penner will also serve on the Executive Committee.

A full list of the current IAMAS officers can be found at <https://www.iamas.org/current-officers/>.



Participants at the IAMAS joint General Assembly and Executive Committee meeting in Berlin. Photograph courtesy of Hans Volkert.

The 2023 IAMAS Early Career Scientist Medal winner Dr Cheng Sun

The IAMAS Early Career Scientist Medal is awarded biennially to a young scientist working in any area of the atmospheric sciences who has carried out excellent scientific research and who has the potential to make a significant contribution in the future. “Young” or “early career” is taken as someone who has earned their highest degree within the last 10 years and is under 40 years of age when nominated. The call for nominations is issued ahead of the IAMAS General and Scientific assemblies and, where possible, the medal and certificate are awarded at an event during the assembly.

The 2023 Early Career Scientist Medal was awarded to Dr Cheng Sun from Beijing Normal University, China. Although early in his career, Dr Sun has contributed to over 90 publications and made significant advances to our understanding of Atlantic climate variability.

IAMAS 2023 Early Career Scientist Medal winner
Dr Cheng Sun being presented with his certificate by
IAMAS Vice-President Dr Mary Scholes at the IAMAS
dinner.



Introducing Marilyn Raphael, Member-at-Large

I am a Professor of Geography at the University of California, Los Angeles and Director of UCLA's Institute of Environment and Sustainability.

I completed my B.A. (Hons) in Geography at McMaster University and a M.A. and Ph.D in Geography at The Ohio State University. Within geography my focus was always on climate and climate dynamics a topic I have been fascinated since childhood. My Ph.D. dissertation was on the poleward flux of sensible heat associated with what was then called the recent warming of the Northern Hemisphere. We now know it as climate change. Immediately after completing my Ph.D. I joined the department of Geography at UCLA as an assistant professor where I built my career teaching undergraduate and graduate classes on climatology and pursuing my research agenda. Much of my research is conducted at UCLA, and also at the National Center for Atmospheric Research (NCAR) where I am an Affiliate Scientist. I have also been a visiting scientist at the University of Tasmania's Institute for Marine and Antarctic Science (IMAS) on several occasions.



My primary research focus is Southern Hemisphere (SH) climate dynamics and climate change. Climate variability in the SH cryosphere has significant implications for global climate and climate change. Over the last few decades, the expansion of Antarctic sea ice, its recent collapse, and the accelerated loss of ice due to glacial melt with direct consequences for Antarctic ice sheet stability, are the focus of much study. Within that sphere, the major scientific goal of my research is that of defining and understanding the interaction between Antarctic sea ice and the large-scale SH circulation, focusing on interactions on the seasonal, interannual and decadal time scales. The atmospheric circulation has a significant role to play in the long-term expansion and recent collapse of sea ice as well as changes in other climate variables in the Antarctic. I use satellite observations of sea ice, observed climate variables, complex statistical models and climate models to aid understanding of the feedback processes. Most recently, to address the relative paucity of data available to inform and validate the climate models and to place the contemporary sea ice variability into context, I, along with three colleagues, reconstructed Antarctic sea ice extent for the pre-satellite 20th century. These data are important because they allow significant advances in our understanding of the contemporary variability of Antarctic sea ice, something that is critically necessary as record extremes of this variable are being observed.

Over my career, I have been Chair of UCLA's Department of Geography and President of the American Association of Geographers (AAG). I have been elected to the American Academy of Arts and Sciences and the American Philosophical Society. I am also a long-term member of the American Geophysical Union, the American Meteorological Society, the American Association for the Advancement of Science and of course, the AAG.

Currently, I am Chair of the SCAR (Scientific Committee on Antarctic Research) and CliC (Climate and Cryosphere) expert group, Antarctic Sea ice Processes and Climate (ASPeCt) and co-Chair of the Polar Climate

Predictability Initiative (PCPI). A critical part of my role in these organizations is to promote research on Antarctic sea ice observations and modeling and on finding elements of the climate system that contribute to predictability, and how these processes may be improved in climate models. I do this by coordinating the efforts of the international science community, bringing together expertise on the observational and modeling aspects of the climate. To this end, I have organized numerous international workshops involving ASPeCt, SCAR and CliC. Along with the scientific aims, I have intentionally worked to entrain early career scientists and to diversify the leadership of the groups.

I am a new IAMAS Member-at-Large, having begun my term in July 2023. However, I have long been interested in the work that IAMAS and its commissions support, in particular its emphasis on polar regions. I have been a participant in IAMAS sponsored activities, for example, organizing a session at the meeting in Davos (2018): POLAR2018 - Where the poles come together. and teaching at the Summer School on the Polar Climate System at Hohai University, Nanjing (2018). IAMAS's overarching goal is to communicate and discuss the latest atmospheric science research. This is well aligned with my own scientific goals. As a Member-at-Large my goal is to use the experience that I have gained and the networks that I have built to promote IAMAS activities. I look forward to learning more about the organization and contributing to its success.

The 2023 IUGG Early Career Scientist Awards

IUGG presents an Early Career Scientist Award at each IUGG General Assembly, with the award going to a young scientist who has carried out outstanding research in Earth and space sciences and/or contributed to international research cooperation. In 2023, 10 young scientists received the award, with two scientists coming from the atmospheric sciences. These were Patrick Hupe who received the award for his transdisciplinary work that bridges meteorology, acoustics and seismology, and Christina Karamperidou for her significant contributions to understanding El Niño spatiotemporal diversity and associated impacts. Full details of this year's awardees and those from previous years can be found at <https://iugg.org/awards/iugg-early-career-scientist-award/#:~:text=This%20Award%20honors%20early%20career,awardees%20are%20bestowed%20a%20certificate.>



The IAMAS/IACS/IAPSO Scientific Assembly BACO-25

Preparations are well underway for the next IAMAS Scientific Assembly, which will be held in the BEXCO conference centre in Busan, Republic of Korea during 20 – 25 July 2025. As has occurred several times in the past, this will be held in conjunction with our sister associations the International Association of Cryospheric Sciences (IACS) and the International Association for the Physical Sciences of the Oceans (IAPSO) and promises to be an outstanding event considering the high level of interest in atmosphere – ocean – ice interactions.

At the recent IUGG assembly in Berlin the IAMAS commissions began the planning of symposia that will be held in Busan and this process will continue over the coming months before the programme and call for abstracts is issued in late 2024.

The assembly web site (http://baco-25.org/2025/english/main/index_en.asp) is already established and should be consulted for updates on the planning of the meeting.

Upcoming meetings

2024

The 19th International Conference on Clouds and Precipitation (ICCP) will be held in Jeju, Republic of Korea during 14 to 19 July 2024. Associated meetings will be cloud chamber and cloud probe workshops before the conference during 13 to 14 July 2024 and the International Cloud Modeling Workshop during 8 to 12 July at Yonsei University.

The next Quadrennial Ozone Assessment organized by the International Ozone Commission will take place in Boulder, Colorado, USA during July 15-19, 2024. The meeting will be held in-person with a hybrid option. Further details of the meeting will be put on the IOC web site (<https://www.io3c.org/>) as they emerge.

The 16th International Commission on Atmospheric Chemistry and Global Pollution (iCACGP) Symposium and 18th International Global Atmospheric Chemistry (IGAC) Science Conference (iCACGP-IGAC Conference 2024) is scheduled to take place at the World Trade Centre Kuala Lumpur (WTC KL) in Kuala Lumpur, Malaysia, from 9th to 13th September 2024. More details are available at <https://icacgp-igac2024.com/>.

2025

The IAMAS/IACS/IAPSO Joint Scientific Assembly BACO-25 (http://baco-25.org/2025/english/main/index_en.asp)
20-25 July 2025 Busan, Republic of Korea.

2027

The 29th IUGG General Assembly. This will be held in Incheon, Republic of Korea in the Boreal summer of 2027. The exact dates will be announced soon.