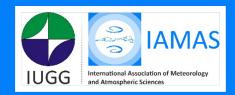
IAMAS e-Newsletter

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Introduction by Member-at-Large Dr. John Turner

Welcome to the August 2024 edition of the IAMAS newsletter. Our newsletter is published several times a year to keep the IAMAS community informed of activities of the commissions and IAMAS officers, to provide reports on recent meetings and give notice of upcoming meetings. We also try to include 'pen pictures' of newly appointed officers of the association, announcements of funding that IAMAS and IUGG can offer and details of changes to the structure of the organisation.



The last few months have been a busy time for IAMAS with two important quadrennial meetings being held, along with other symposia, often in conjunction with sister organisations. This issue includes reports of the quadrennial meetings of the radiation and ozone commissions, and reports on the atmospheric rivers meeting in Chile and the symposium entitled "International Forum on Pacific Island Countries Response to Climate Change" held in China.

We are always looking for material that could be included in one of our newsletters, so if you would like to submit an item, whether it be a meeting report, announcement of an upcoming meeting, a community event or information that would be of interest to and pertinent for atmospheric scientists, in the first instance please contact John Turner at john.turner.cambridge@gmail.com

Report on the 2024 International Forum on Pacific Island Countries Response to Climate Change (PICC 2024)

The 2024 International Forum on Pacific Island Countries Response to Climate Change (PICC 2024) was held in Qingdao, China from July 6 to 7. The meeting was well attended and attracted over 100 delegates from more than 10 countries, including China, the United States, the United Kingdom, Spain, Korea and Fiji. The forum was hosted by the Center for Ocean Carbon

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Neutrality (COCN) at the Ocean University of China (OUC) and focused on accelerating global cooperation and developing sustainable solutions to address the impacts of climate change on Pacific Island Countries (PICs).

At the opening ceremony, Professor Jianping Li, director of the COCN at OUC and chair of the forum, highlighted the vulnerability of PICs to climate change. Ms. Bin Lin, Deputy Secretary-General of the Communist Party of China Qingdao committee, underscored Qingdao's deepening ties with these countries through high-level visits, sister-city interactions, and economic and cultural exchanges. Professor Yong Liu, Vice President of OUC, reiterated the university's dedication to open education and international collaboration to tackle climate change.

The speakers focused on topics such as climate change impacts, sea level rise, blue carbon, the carbon cycle and budget, ocean governance, and sustainable development. Prof. Jianping Li presented a talk on the "Impacts of Climate Change on Sea Level Rise in Pacific Island Countries", noting that Pacific Island countries are located at the center of the highest sea level rise, historically, currently, and projected into the future, and warned that more islands could be submerged. Prof. Mat Collins from the University of Exeter gave a presentation entitled "Tropical Pacific Sea Surface Temperature Patterns and the El Niño Southern Oscillation under Climate Change", and focused on changing oceanic conditions. Prof. Bibhya Sharma from the University of the South Pacific addressed "University of the South Pacific's Battle Against Bizarre Opponents in the Pacific", highlighting the fact that the university has established the Center for Pacific Sustainability Futures, which aims to accelerate climate change mitigation and enhance resilience and adaptation to climate change impacts. Prof. Luzhen Chen from Xiamen University reported on "Blue Carbon Methodology in China: Tools for the Assessment of Ocean-based Climate Solutions", introducing methodologies for assessing ocean-based interventions. Prof. Jianping Gan from Hong Kong University of Science and Technology explored "Carbon Cycle and Budget in the China Sea: from Dynamics-based Modeling Prospect" and offered insights into carbon dynamics in marine environments. The presentation from Prof. Pierre Failler from University of Portsmouth, UK "Blue Economy Development and Climate Change" stressed its importance. Prof. Ding He from the Hong Kong University of Science and Technology presented "DREAMs: Data-driven appRoaches for Exploring organic geochemistry of Aquatic ecosystems," which focuses on using data to understand aquatic ecosystems. Prof. Sang-Woo Kim from Seoul National University discussed "Climatic Impacts of Light-Absorbing Atmospheric Aerosols in East Asian Outflow: Key Findings from Two Decades of Observations", summarizing twenty years of research. Prof. Blanca Ausín from the University of Salamanca presented on "Origin, Transport, and Fate of Proxy Particles in the Ocean: Implications for Paleoclimate Reconstructions," which involves studying particles for climate history insights. Mr. Dave Hebblethwaite from the Pacific Community (SPC) spoke on "Accelerating Pacific Action



on Climate, Disaster, and Water Security", advocating for proactive measures in the Pacific regions.

In conclusion, PICC 2024 was a successful event, thanks to the generous co-sponsorship from IAMAS and other organisations. The forum called for urgent efforts to accelerate climate action and explore solutions to help PICs better cope with climate change and achieve sustainable development.

Jianping Li (<u>lip@ouc.edu.cn</u>)
Chair of the Local Organizing Committee

Report on the 5th International Atmospheric Rivers Conference La Jolla, CA, USA 24-27 June 2024

With more than 150 participants from around the world, the 5th International Atmospheric Rivers Conference (IARC) was held during 24-27 June 2024, in the beautiful Seaside Forum at the Scripps Institution of Oceanography in La Jolla, California, and online in a hybrid format. The conference focused on interdisciplinary topics around atmospheric rivers (ARs) – long, narrow and transient corridors of strong horizontal water vapour transport supplied by tropical and/or extratropical moisture sources. The meeting brought together a multi-disciplinary global community of experts across diverse science fields - atmospheric, hydrologic, oceanic, polar and social – as well as experts in civil engineering and ecological applications. These fields were broadly represented by the following conference themes:

- Physical, dynamic and microphysical aspects of ARs
- Aerosol and biochemical aspects of ARs
- ARs as a component of compound events
- Environmental and socioeconomic impacts of ARs
- Observing, identification, and monitoring of ARs
- Forecasting of ARs in the short-range, medium-range, sub-seasonal to seasonal, and seasonal timescales
- ARs in past, present, and future climates
- The role of ARs in the changing cryosphere

During the four days of the conference, there were 80 oral presentations (in person and online, including 60 tenminute regular talks and 20 three-minute "lightning" talks) and 38 posters onsite. Each day opened with keynote presentations. To foster collaborations and strengthen inter-disciplinary discussions, the conference included breakout group sessions, including discussion on prediction, projection, cryosphere, physical, compound, observations and impacts of the ARs as well as an AR labelling hands-on session. A special panel discussion

was held on the WCRP Global Precipitation Experiment (GPEX). Financial support for the conference was provided by the Center for Western Weather and Water Extremes (CW3E), the Center for Climate and Resilience Research (CR, Chile), the Scientific Committee on Antarctic Research (SCAR) scientific research programme AntClimNow and the International Union of Geodesy and Geophysics (IUGG). IUGG financial support was specifically used to cover registration fees for all early career researchers (ECRs) grant applicants and as travel grants for ECRs presenting on cryosphere topics, while SCAR funding was used for



Participants at the 5th International Atmospheric Rivers Conference.

full travel support for the ECR keynote speaker in the Cryosphere session. Detailed conference information including the book of abstracts can be found on the conference website (https://cw3e.ucsd.edu/iarc2024/). Key achievements and conclusions of the conference include sustaining a growing AR community, advancing the state of AR science across different disciplines, relating the scientific results to stakeholders' needs, creating and strengthening collaborations between scientists and decision-makers and training the next generation of scientists. Held every 2 years, the next IARC is planned for 2026, moving to Europe with Portugal being proposed as the conference venue.

Report on the IRC Quadrennial Symposium

Hangzhou, China, 17-21 June 2024

The quadrennial symposium of the Internation Radiation Commission (IRC), the International Radiation Symposium 2024 (IRS 2024), was held in Hangzhou, China, from 17-21 June 2024. This was the second time the IRS had been held in China following the IRS 1986 in Beijing. It was also the second IRS in three years since the previous symposium, IRS 2022 in Thessaloniki, was delayed twice due to the COVID-19 pandemic. The IRC was determined to set the IRS back to its previous cadence.

IRS 2024 was organized by the School of Earth Sciences at Zhejiang University (ZJU) in partnership with the IRC and sponsored by the International Union of Geodesy and Geophysics (IUGG) and the International Association of Meteorology and Atmospheric



IAMAS Member-at-Large Mu Mu giving the welcome address at the IRC Quadrennial Symposium.

Sciences (IAMAS). The Zhejiang Sanli New Century Grand Hotel provided a single convenient location for participant accommodation and all symposium sessions. Over 270 scientists from 18 countries participated in this all in-person symposium, with 193 oral presentations and 74 posters.

IRS 2024 provided a comprehensive international forum for presenting and discussing research in atmospheric



IRC President Peter Pilewskie discussing the history of the IRC and its role within IAMAS.

radiation and related disciplines in the following ten sessions: Topical Union Session: Current Problems in Atmospheric Radiation; Radiative Transfer Theory and Modelling; Particle Radiative Properties; General Remote Sensing; Ground-based Measurements and Field Observations; Radiation Budget and Forcing; Weather, Climate, and Environment Applications; Solar UV Radiation; China's Satellite Remote Sensing Programs; Radiation Science in the Tibet region. Internationallyrenowned senior scientists, early career scientists, and students all had a unique opportunity to discuss the current scientific issues, exchange new ideas and establish farreaching collaborations. Keynote addresses were delivered in the Topical Union Session

at the start of each day.

A banquet was held on the evening of the third day at the famed Hangzhou Cuisine Museum. One of the highlights was the awards ceremony where the IRC Gold Medal and Young Scientist awards were presented. Dr. Ping Yang (Texas A&M University Distinguished Professor) received the IRC Gold Medal for his remarkable achievements, groundbreaking research, and unwavering dedication to advancing our understanding of radiative processes in the Earth-Atmosphere system. Dr. Jake Gristey (Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder) was presented with the IRC Young Scientist Award for a wide range of expertise, from high-resolution modelling to satellite mission design, and from pure curiosity-driven science questions to machine-learning applications. Three additional scientists were awarded an Early Career Poster Prize, sponsored by the IAMAS-associated journal, Advances in Atmospheric Sciences (AAS): Stavros Vigkos (National Observatory of Athens), Jaume Ruiz de Morales (Universitat de Girona), and Mayuki Sano (Tohoku University).

AAS also plans to publish a comprehensive meeting report of IRS 2024 and a special issue featuring select papers presented at the symposium.



Attendees at the IRS Quadrennial Symposium.

On the afternoon of 20 June 2024, participants had the opportunity to join one of three excursions: West Lake, a World Cultural Heritage Site that had a major influence on East Asian culture between the ninth and eighteenth centuries; the Lingyin Temple, built in 328 AD during the Eastern Jin Dynasty, and one of the most significant and wealthiest Buddhist temples in the country; or Xixi Wetland Park, with a history of more than 4,000 years and an abundant cultural heritage.

IRS 2024 was by all measures a resounding success. The IRC looks forward to inviting you to the next International Radiation Symposium in 2028.

Report on the Quadrennial Ozone Symposium

Boulder, Colorado 14-19 July

The Quadrennial Ozone Symposium (QOS) was held at the University of Colorado in Boulder on July 14–19, 2024. Information about the science program and logistics can be found at https://qos2024.colorado.edu/home. The previous 2021 QOS was a completely online meeting that was very successfully executed by Yonsei University in Seoul, South Korea.

QOS 2024 was organized jointly by the Cooperative Institute for Environmental Sciences (CIRES), the National Oceanic and Atmospheric Administration (NOAA), the National Aeronautics and Space Administration (NASA), the National Center for Atmospheric Research (NCAR) and the University of Colorado, with the International Ozone Commission (IO3C) setting up the scientific committee of the symposium. Primary sponsors of the event were IUGG, IAMAS, WMO GAW, CIRES, The University of Colorado, Boulder, NASA (HQ), SciGlob, Environmental Science, BAE Systems and EUMETSAT.

The QOS 2024 brought together and facilitated scientific exchange between scientists from all over the world who were working on all aspects of ozone research. This was the quadrennial meeting of researchers and stakeholders who are interested in monitoring and understanding processes that impact the ozone layer. The topics for discussion included the monitoring of changes in global ozone levels, declining emissions of ozone depleting substances regulated by the Montreal Protocol, climate processes impacting ozone, air quality effects on the tropospheric ozone, environmental and health impacts, development of new instruments and techniques, and extreme events (i.e. volcanic and anthropogenic). Each topical session featured a keynote and invited speakers, included oral and poster presentations, which provided a platform for discussion and exchange of ideas in plenary sessions.

Events included an ice breaker, research group side meetings, and a conference dinner, during which several awards were presented. The Dobson award was given to early career scientist Dr. Luke Western for his article on global increase of ozone-depleting chlorofluorocarbons from 2010 to 2020 and the Farman award for life career achievement was given to both Dr. Philippe Nedelec for the IAGOS/MOZAIC long-term ozone records and to Dr. Herman Smit for his unique contribution to the calibration and quality of the global ozonesonde record. The sessions were available for online viewing and virtual presentations (including two-minute virtual poster presentations) were given to facilitate wider participation among countries in transition at a minimal cost to researchers.

The conference supported 22 early career scientists with waived registration fees and four participants received additional travel grants. The QOS had more than 220 participants including 40 online participants, seven keynote talks, six invited talks, 97 oral presentations (in seven sessions), and 221 posters (34 posters online). Working group meetings for the instrumental and research activities took place the weeks before and after the QOS, providing carbon savings for those who stayed in Boulder to reduce travel.

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Phishing emails

Officers of IAMAS continue to receive finance-related phishing emails that purport to come from Bureau members, but which are in fact from scammers trying to initiate transfers of funds.

Although such emails appear to come from actual Bureau members, they are really from email addresses such as IAMASPresident@gmail.com or similar. We recommend that if you are unsure about any email, and especially if money/funding/financial matters are mentioned, you check the originating email address and not just trust the name of who appears to have sent the message. Obtaining the actual email address of the sender depends on the platform you're using, but usually involves right clicking the sender name or a similar action.

If you are in any doubt about the authenticity of an email, especially if it relates to financial matters, do contact the IAMAS office via the email address at https://www.iamas.org/current-officers/. Don't reply to the suspicious email, but contact the IAMAS person via the email address on the IAMAS web site.

The 2025 IAMAS/IACS/IAPSO Scientific Assembly BACO-25

Together with our partner associations for cryosphere and oceans, and the local organizers in Korea, IAMAS is right on track planning our joint assembly BACO-25 (www.baco-25.org).

The first circular has been released (www.iamas.org) and the IAMAS Secretary General has responded individually to lead convenors of all the roughly 50 proposed IAMAS lead symposia with acceptance and any comments and suggestions from the program committee. The scientific program should be available on the BACO25 website in the coming month, with the expectation that further changes may be necessary after the abstract submission deadline.

Many symposia, especially those that have been suggested to merge, could benefit from updated descriptions, simplified titles, improved identification of those co-convenors who are primarily involved in atmospheric science and marked as representing IAMAS. Consolidation to a smaller number of co-convenors who are planning to be present at BACO-25 would be useful. Any convenors with questions, edits or updates to their symposia titles, descriptions, or co-convenor lists, please feel free to message the SG (iamas.secretary@gmail. com), with the relevant commission president in cc by Friday 30th of August.

IAMAS commission leaders have also all been contacted to identify any business meeting room requirements they may have and are encouraged to update these as required with the Secretary General. As at previous assemblies, IAMAS itself plan to hold two business meetings in Busan, which are open to all interested participants. The first will be a half day joint Executive Committee (Bureau plus commission leadership) and General Assembly (National Delegates) meeting, probably on the second day of the Assembly. At the first meeting any issues requiring decision will be tabled and discussed. Then, probably on the last day of the Assembly, the same group will meet again over the lunchbreak, to finalize decisions of the delegates, with voting only if necessary.

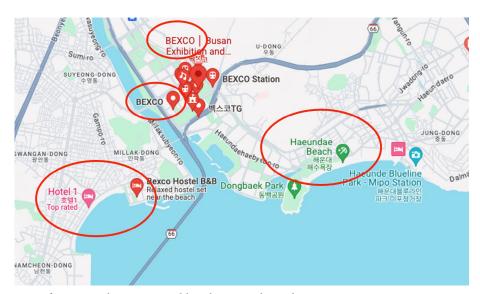
The IAMAS Bureau has agreed to a proposal from our Early Career Scientist Group to sponsor an ECS social event on the first evening of the Assembly, and IACS and IAPSO have expressed their tentative agreement to also

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sponsor this event. Tentatively, this may occur at the Busan Cinema Center, an iconic space that hosts the annual International Busan Film Festival. Further details will be made available on the BACO website once finalized. Keep in mind that the bi-annual IAMAS Early Career Scientist medal (https://www.iamas.org/blog/category/awards/) will be awarded at the Assembly, and our call for nominations for the award is expected to be released in the last quarter of 2024.

For participants thinking about where to stay, there are ample hotel rooms in easy walking distance of the BEXCO conference facility. There are also two vibrant beach and nightlife areas with plenty of both high end

and inexpensive options a short subway ride away (see my inexpertly annotated map below). Subway transit pass cards are relatively inexpensive and available at any convenience store (probably also at the conference venue). In terms of the weather, the monsoon season typically ends fairly abruptly sometime in late July, with the 'prime' beach holiday season starting immediately thereafter, so certainly be prepared for rain, but there will likely be some nice days to enjoy the beaches as well, and perhaps some squeeze on hotel rooms, especially towards the end of and immediately after the assembly.



Map of Busan with BEXCO and hotel areas indicated.

In closing, I note the rich history of IAMAS assemblies (the last few decades of which are copied below), and that in Busan one task before the delegates will be to decide on which, if any, other IUGG association(s) we may wish to meet with. Also, the location for our next non-IUGG year assembly in 2029 will be decided by the IAMAS Delegates. Anyone who has thoughts or suggestions, or better yet desire to submit a hosting bid, are encouraged to contact the IAMAS President or Secretary General.

2029 IAMAS. Early planning stage. Bids to host this meeting are welcome.

2027 IUGG Incheon, Korea

2025 IAMAS-IAPSO-IACS Busan, Korea

2023 IUGG Berlin, Germany

2021 IAMAS virtual

2019 IUGG Montreal, Canada

2017 IAMAS-IAGA-IACS Cape Town, South Africa

2015 IUGG Prague, Czech Republic

2013 IAMAS-IACS Davos, Switzerland

2011 IUGG Melbourne, Australia

2009 IAMAS-IAPSO-IACS Montreal, Canada

2007 IUGG Perugia, Italy

2005 IAMAS Beijing, China

2003 IUGG Sapporo, Japan

2001 IAMAS Innsbruck, Austria

1999 IUGG Birmingham, UK

1997 IAMAS-IAPSO Melbourne, Australia

1995 IUGG Boulder, USA

1993 IAMAS-IAHS Yokohama, Japan

1991 IUGG Vienna, Austria

1989 IAMAS Reading, UK

1987 IUGG Vancouver, Canada

IAMAS and IUGG financial support for activities in 2025

Each year IAMAS provides financial support for workshops, symposia and other activities associated with the work of the IAMAS commissions and their sub-groups. The 2024 call for bids relating to activities in 2025 will be released this October and distributed to all our commissions with details provided of how to apply for funds. It should be noted that since the BACO-25 assembly will be held next year, priority will be given to bids enabling attendance at this event and associated side meetings.

IUGG are also providing funds for activities next year. An initiative to propose a scientific meeting for IUGG sponsorship can originate from any group of scientists, including of course the commissions of IAMAS. The number of IUGG co-sponsored meetings ranges from 10 to 15 (up to USD 10,000 each) and IAMAS has historically been successful with several in any given call.

Prospective meeting organisers from IAMAS commissions should contact the IAMAS Secretary General at <u>iamas.secretary@gmail.com</u> well in advance of their intended proposal submission, by sending a request for IUGG support no later than 15 October 2024.

The scientific merit of each scientific meeting proposal will be evaluated by the IAMAS Bureau, which will communicate their recommendation for selection to the IUGG Secretary General before 31 October 2024.

Upcoming meetings

2024

- Europlanet Science Congress (Berlin, Germany) 9-14 September, 2024. (ICPAE)
- 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/. (ICACGP)
- Linking Weather and Climate Dynamics Across Scales. Nanjing University International Conference Center, Nanjing, China. 13-19 October 2024. For more details see https://icdm2024.nju.edu.cn/#/
- The 9th SOLAS Open Science Conference (Goa, India) 10-14 November 2024. (ICACGP)

2025

- The IAMAS/IACS/IAPSO Joint Scientific Assembly BACO-25, 20-25 July 2025 Busan, Republic of Korea. www.baco-25.org.
- The 11th WMO Scientific Conference on Weather Modification. Pune, India 3-7 November 2025. https:// www.tropmet.res.in/229-event details

2026

The 6th International Atmospheric Rivers Conference. Date and location to be decided.

2027

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

2028

The next IRC Quadrennial Symposium. Date and location to be decided.