

Annual Report of the International Association of Meteorology and Atmospheric Sciences (IAMAS) 2016

www.IAMAS.org

INTRODUCTION

IAMAS is the specialized association of the International Union of Geodesy and Geophysics (IUGG) that deals with all aspects of the gaseous envelope around the Earth and other planets. The main research work is carried out, coordinated and communicated through IAMAS's 10 International Commissions (IC), which are in alphabetical order 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 (CNAA)
- 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)
- International Radiation Commission (IRC)

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

ADMINISTRATION

IO3C:

The Bureau did not change during 2016. In this period its members communicated regularly by monthly teleconference and email. The 2016 Bureau meeting was held over 13-14 April, 2016 in Kyoto, Japan. The Bureau reviewed the IAMAS financial status and activities, and discussed important items related to the IAMAS management, the plan for future activities, such as IAMAS program arrangement for the IAPSO-IAMAS-IAGA Assembly 2017, the host proposals for IAMAS Assembly 2021, and award nominations. Elections were conducted by some commissions and new commission officers were elected as follows:

ICCP: President Andrea Flossmann (Second term)

Vice-President Greg McFarquhar

Secretary Darrel Baumgardner (Second term)

President Sophie Godin-Beekman

Vice-President Paul A. Newman Secretary Irina Petropavlovskikh

IRC President B.J. Sohn

Vice-President Peter Pilewskie Secretary Marcia Yamasoe

ACTIVITIES

Website and Newsletter:

The new official website of IAMAS was launched in January 2016. Also the Newsletter "IAMAS Info-Email" was redesigned and made more readable and attractive, enhancing the interaction and the sharing of information with the commissions.

Publications:

According to the MOU between IAMAS and Advances in Atmospheric Sciences (AAS), AAS has published four meeting reports, which are all open access at http://link.springer.com/journal/376.

- ICPM: "The 10th Antarctic meteorological observation, modeling, and forecasting workshop"
- ICPM: "3rd ANtarctic Gravity Wave Instrument Network (ANGWIN) science workshop"
- IO3C: "The Quadrennial Ozone Symposium 2016"
- IRC: "The International Radiation Symposium 2016"

AAS also organized two special issues (to be published in 2017), with some IAMAS scientists as guest editors.

- "Special Issue: Impact of a Rapidly Changing Arctic on Eurasian Climate and Weather" (Guest Editor Andrew Orr from ICPM)
- "Special Issue: Aerosols, Clouds, Radiation, Precipitation, and Their Interactions" (Guest Editors Teruyuki Nakajima and Byung-Ju Sohn from IRC)

Awards:

- The 2016 Alfred Wegener Medal and Honorary Membership of the European Geosciences Union (EGU) was bestowed on Prof. John P. Burrows, Chair of the IAMAS Commission on Atmospheric Chemistry and Global Pollution (iCACGP)
- The IRC Gold Medal was awarded to Prof. Teruyuki Nakajima, Secretary General of IAMAS
- Honorary Fellow of the Geological Society of India (GSI) was bestowed on Prof. Sir Brian Hoskins, Past President of the IAMAS

Highlights from the IAMAS International Commissions

ICACGP (http://www.icacgp.org/)

The International Global Atmospheric Chemistry (IGAC) 2016 Science Conference was held in September in the USA with many presentations and posters. Earlier in the year ICACGP members joined an international effort to argue strongly in favour of the climate change programme at CSIRO to evolve positively to meet the need for evidence and improved prediction and not be cut back. ICACGP commission members participated in the Mario J. Molina Symposium held as part of the American Meteorological Society meeting in January 2016. ICACGP recommended the ATMOSPHERIC COMPOSITION AND THE ASIAN MONSOON (ACAM) meeting granted by IAMAS and IUGG.

ICAE (http://icae.jp/)

ICAE has published two issues of newsletters. All the two ICAE newsletters are well received by ICAE colleagues and can be accessed through ICAE website http://www.icae.jp. ICAE website and mailing list have been updated. The next International Conference on Atmospheric Electricity 2018 (ICAE 2018) will be held in NARA, and is currently under preparation.

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

The 13th General Circulation Model Simulations of the East Asian Climate (EAC) workshop took place at Beijing Normal University in Beijing, China from 24-25 March 2016 with about 100 participants, among which 13 were from Japan, South Korea and USA, and about 50 are students and early careers researchers. The workshop was organized by Beijing Normal University, National



Natural Science Foundation of China (NSFC), Ministry of Science and Technology (MOST), State Key Laboratory of Numerical Modeling for Atmospheric Sciences and Geophysical Fluid Dynamics (LASG), Institute of Atmospheric Physics (IAP), Chinese Academy of Sciences, The International Commission on Climate (ICCL) and IUGG Union-Commission on Climatic and Environmental Change (CCEC). The workshop included four sessions (1. Detection and Attribution, 2. Climate Variability, 3. High-Impact Weather and Extremes, 4. Predictability, Prediction and Projection) with 33 Oral presentations and 34 posters.

ICCP (http://www.iccp-iamas.org/)

ICCP held its 17th 4-yearly International Conference in Manchester, UK from 25-29 July which was attended by over 450 scientists from 26 countries. Two related workshops were held prior: the 9th International Cloud Modeling Workshop in Exeter, UK on 18-22 July 2016 and the 3rd ICCP Workshop on Cloud Microphysics Data Processing Analysis and Presentation Software in Manchester, UK from 23-24 July, 2016.

ICDM (http://icdm.atm.ucdavis.edu/ICDM.html)

The commission co-sponsored and commission members helped plan the Workshop on Atmospheric Blocking held at the University of Reading, United Kingdom on 6-8 April 2016 (http://www.sparc-climate.org/meetings/Workshop_on_Atmospheric_Blocking_Reading_April2016/) The commission sponsored or co-sponsored proposals for three Joint and eight IAMAS symposia to be held at the IAGA-IAMAS-IAPSO Joint Assembly in Cape Town, South Africa in 2017.

ICMA (http://icma.iaa.es/)

ICMA has been actively participating in the organization of the IAPSO-IAMAS-IAGA General Assembly "Good Hope for Earth Sciences", 27 August - 1 September 2017, Cape Town, South Africa. In Cape Town, ICMA will hold the IAMAS M12 Middle Atmosphere Symposium and co-lead the joint IAGA and IAMAS JA4 solar-related Variability of the Atmosphere Symposium. We expect both symposia will contribute to bring together our vibrant community working on the dynamics, radiation and chemistry of the middle atmosphere. IAMAS/ICMA has been awarded by the IUGG Grants Programme a 5000 USD grant for a "Training school on stratosphere-troposphere interactions on the occasion of IAPSO-IAMAS-IAGA 2017 in Cape Town, South Africa". Organization of the school, in collaboration with World Climate Research Programme / Stratosphere-troposphere Processes and their Role in Climate (WCRP/SPARC) is ongoing. Announcement of the training school can be found at the following

address:

http://www.sparc-climate.org/meetings/Training school on stratosphere troposphere interactions Sep2017/

IOC (https://ioc.atmos.illinois.edu/)

The 2016 Quadrennial Ozone Symposium (QOS-2016) was held on 4-9 September 2016 in Edinburgh, UK. The Symposium had more than 300 participants from 39 different countries, and featured six keynote talks, 75 oral presentations and 270 poster presentations. New Officers (President: Dr. Sophie Godin-Beekman, Vice-President: Dr. Paul A. Newman, Secretary: Dr. Irina Petropavlovskikh) were elected.

ICPAE (http://icpae.iaps.inaf.it/)

ICPAE is looking forward to the IAPSO-IAMAS-IAGA assembly in Cape Town, South Africa where it will hold the IAMAS Session M13 - Comparative Planetary Atmospheres within and beyond the Solar System and the IAGA-IAMAS Joint Session JA 1 - Space weather throughout the solar system: bringing data and models together. Abstracts are invited on planetary atmospheres in the solar system and around other planetary systems. Contributions pertaining to recent progress in the effective incorporation of data into planetary space weather modeling and prediction at any point along the chain from sun to planets are strongly encouraged. The Joint Session welcomes approaches that are

less traditional in the space weather community but possess potential for significant progress in forecasting and understanding space weather in the Solar System.

ICPM (http://www.icpm-iamas.aq/)

ICPM endorsed and, with funding from IAMAS, supported the 12th Antarctic Meteorological Observations, Modeling, and Forecasting Workshop (AMOMFW) in Columbus, Ohio, USA. A summary of the workshop, held 5-9 June, 2016, is in preparation. In conjunction with this meeting, the ICPM sanctioned Polar Boundary Layer Symposium was held along with the International Workshop on Coupled Modeling of Polar Environments. The 3rd Antarctic Gravity Wave Instrument Network (ANGWIN) Science Workshop held in Cambridge, UK on 12-14 April, 2016 was also an ICPM endorsed event, sponsored by IAMAS. The ICPM has been planning for the Cape Town IAPSO-IAMAS-IAGA Joint Assembly in Cape Town, South Africa. Two sessions are planned: A session on polar oceanography and meteorology and a session on vertical atmospheric coupling in the polar atmosphere. Additionally, ICPM is also planning for the Workshop on Antarctic Meteorology and Climate (AMC), along with the Year of Polar Prediction-Southern Hemisphere and Southern Ocean Regional Panel, meetings the week of 26-30 June, 2017. The 2017 AMC conference (the new name for the AMOMFW event) is supported by IAMAS with travel support for students and young scientists.

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

The IRC International Radiation Symposium 2016 (IRS 2016) was held at the University of Auckland, New Zealand, during 16 - 22 April, 2016. The 268 scientists from 28 countries presented recent research results covering all aspects of the atmospheric radiation. IRC Gold Medal Award was given to Teruyuki Nakajima and Young Scientist Award to Zhibo Zhang. New IRC officers (President: B.J. Sohn, Vice President: Peter Pilewskie, Secretary: Marcia Yamasoe) were also elected there for the 2017-2020 term.

FUTURE ACTIVITIES

All commissions are engaged in the planning of the IAPSO-IAMAS-IAGA Assembly to be held from 27 August to 1 September, 2017 in Cape Town, South Africa. IAMAS leads four joint sessions, JM1/OBSERVING OUR PLANET FROM SPACE (IAMAS, IAGA, IAPSO) Convenor - BJ Sohn; JM2/CLIMATE VARIABILITY AND CHANGE ON ALL SCALES (IAMAS, IAPSO) Convenor - Fei Fei Jin; JM3/THUNDERSTORM COUPLING TO THE UPPER ATMOSPHERE (IAMAS, IAGA) Convenor - Colin Price; JM4/FUTURE CLIMATE FOR THE AFRICAN CONTINENT (IAMAS, IAPSO) Convenor - Charles Williams. 22 sessions will be held as IAMAS-only Symposium. We are planning to hold the IAMAS EC meetings on 27 and 31 August. The host of the 20121 IAMAS Science Assembly will be elected at this meeting.

Submitted by Teruyuki Nakajima, IAMAS Secretary-General