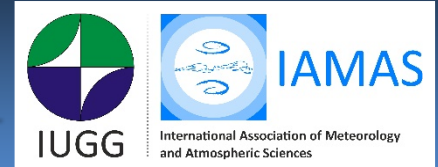


INFORMATION E-MAIL FROM THE IAMAS BUREAU



August 2017

Content:

IAMAS Plenary Session in Cape Town	1
4th International Conference of HESSS	2
Report on the Third Workshop on ACAM	3
2nd ACAM Training School	4
EUFAR/IAMAS/IUGG/ICCP Workshop	5
2017 AGU Award	6
Article in AAS's News & Views	6
Upcoming IAMAS-related Meetings	6

IAMAS Plenary Session in Cape Town

The IAMAS Plenary Session will take place over 14:00-15:00 on Thursday, 31 August 2017 in Room Auditorium 2, Cape Town International Convention Center (CTICC) in Cape Town, South Africa.

This event will allow members of IAMAS to discuss the current state of the association and how we might develop in the future. The programme is 1) Introduction to IAMAS activities, 2) Panel discussion on possible IAMAS future strategy, and 3) Early Career Scientist Medal ceremony.

Firstly, John Turner, President of IAMAS, will introduce current IAMAS activities and future options. In the Panel discussion, the Bureau Members, the Presidents of the commissions and also the Members at Large will discuss several topics. This is good opportunity to provide ideas about how to operate IAMAS, such as the role of the officers, further medal awards, social media and finances etc. The previous IAMAS Info-E announced that Corinna Hoose was selected as the IAMAS Early Career Scientist recipient for 2017. The Award Committee chaired by Joyce Penner, Vice President of IAMAS will present her with the medal.



The Venue of IAMAS Plenary Session: Cape Town International Convention

On the same day, an Early Career Scientist Event will be held at 18:00-20:30 in Room 2.41-2.43 under the auspices of Michelle McCrystall and John Turner for young scientists who are invited to join in the networking. Julia Keller will make a presentation on Young Earth System Scientists (YESS)'s activities.



Welcome



The 4th International Conference of Hydrology delivers Earth System Science to Society



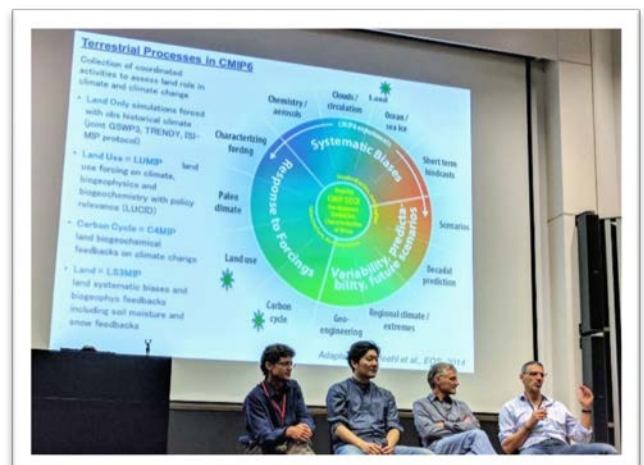
Participants at the 4th International Conference of Hydrology delivers Earth System Science to Society

The fourth international conference of Hydrology delivers Earth System Sciences to Society (HESSS) took place from 16 to 19 May 2017 in Tokyo, Japan. The series of workshops have provided forums for strengthening synergies between the modeling and monitoring research communities in hydrology and water resources since 2007. The fourth conference was hosted by the Institute of Industrial Science, the University of Tokyo (IIS) and co-sponsored by IAMAS and the GEWEX Global Land Atmosphere System Study (GLASS) Panel. The workshop focused on "Climate Extremes and Global Energy, Water and Carbon Cycles: Improving and Integrating Knowledge Across Disciplines" and discussed on-going model intercomparison projects (MIPs) including both natural and anthropogenic hydrological cycles: the Global Soil Wetness Project Phase 3 (GSWP3), the Inter-Sectoral Impact MIP (ISIMIP), Earth System Model-Snow MIP (ESM-SnowMIP), Land Surface, Snow, Soil-moisture MIP (LS3MIP) and Land Use MIP (LUMIP).

The workshop consisted of five symposium sessions in the program on the following topics: 1: Changes of Climate Forcing and Terrestrial Feedback, 2: Changing Climate and the Natural-Human System, 3: Satellite Remote Sensing and Model Integration, 4: Uncertainties in Model Simulations and 5: Delivering Science to Society. In addition, two tutorial sessions were provided by the International Land Model Benchmarking (ILAMB) project. More than 100 participants from 16 countries attended the conference, and there were 15 keynote

presentations, 47 oral presentations and 34 poster presentations. The workshop was facilitated by the local organizing committee led by Hyungjun Kim and Taikan Oki, Institute of Industrial Science, the University of Tokyo, Tokyo, Japan.

Participants agreed that HESSS4 provided an opportunity to share knowledge and datasets across the initiatives and built capacity among communities. Involving social scientists could make HESSS strengthen the delivering science to society, enhancing knowledge and information symmetry between science and society.



From left: Aaron Boone, Hyungjun Kim, Gerhard Krinner, and Dave Lawrence

Report on the Third Workshop on Atmospheric Composition and the Asian Monsoon (ACAM)

Following the first and the second workshops in 2013 (Kathmandu) and 2015 (Bangkok), the ACAM community of scientists recently held its third workshop at Jinan University in Guangzhou, 5-9 June 2017. The participants included 160 scientists from 18 countries. The scientific discussion spanned issues ranging from ground-level air quality to upper atmospheric composition in the Asian monsoon region. The region is unique given the interaction between the monsoon meteorology and emissions from human activity where population and economic development are undergoing rapid change. These interactions have important local implications in terms of the coupling between pollution and monsoon changes and their impacts on human health and the regional economy. The interactions also have global significance, which comes from the effective conduit that monsoon convection provides for pollution to reach the upper atmosphere with potential impacts on climate and stratospheric ozone, which is a topic of intense investigation.

The workshop included 80 oral and 50 poster presentations on recent science results as well as current and future plans for field observations in the region. Discussion sessions were devoted to several

collaboration topics including data sharing, participation in community modeling efforts, coordination of field observations, and capacity building through training and mentoring of young scientists.

The workshop was enabled by generous sponsorship from the following organizations that provided for meeting facilities and expenses as well as travel support for 55 of the meeting attendees: International Union of Geodesy and Geophysics (IUGG), International Association of Meteorology and Atmospheric Sciences (IAMAS), China Association for Science and Technology (CAST), Chinese Academy of Sciences (CAS), Key Laboratory of Middle Atmosphere and Global Environment Observation (LAGEO), Nanjing University of Information Science and Technology (NUIST), Jinan University, International Commission on Atmospheric Chemistry and Global Pollution (iCACGP), Stratosphere-troposphere Processes And their Role in Climate (SPARC), International Global Atmospheric Chemistry project (IGAC), International Centre for Integrated Mountain Development (ICIMOD), Forschungszentrum Jülich, National Center for Atmospheric Research (NCAR), National Aeronautics and Space Administration (NASA), and Picarro Inc.



Second ACAM Training School on Observations & Modeling of Atmospheric Chemistry and Aerosols

Over 40 students and 9 lecturers attended the Observations and Modeling of Atmospheric Chemistry and Aerosols in the Asian Monsoon on 10-12 June 2017 at Jinan University, Guangzhou, China. This training event was organized within the framework of the joint IGAC-SPARC activity, Atmospheric Composition and Asian Summer Monsoon (ACAM). The 3rd ACAM workshop, held 5-9 June 2017 at Jinan University, Guangzhou, preceded the training school. Specific goals of the training school were to provide (i) training of early career scientists on topics relevant to studying trace gases and aerosols in Asia particularly in connection with the Asian monsoon, (ii) to create a network of ACAM early career scientists, and (iii) to provide resources for improving their science and communication skills. This event was second in the series of training activities organized as part of the ACAM working group on capacity building.

Participants in the training school represented 7 Asian countries and 3 European countries, with over 1/3rd female participants. Participants were either current students (primarily graduate) or early career scientists within 3 working years of receiving their Ph.D., with interest in learning about observations and modeling tools for applications to ACAM research.

Lecturers at the school presented theory and practical information on their expertise, ranging from satellite remote sensing to aircraft observations to analysis of long-term datasets to global and regional modeling of trace gases, aerosols, and meteorological parameters in the Asian monsoon region. Dr. Tianjun Zhou (Chinese Academy of Sciences, China) presented two overview lectures on the Asian monsoon, associated air-sea interactions, and the role of anthropogenic activity on Asian monsoon circulation and rainfall variability. Jessica Neu (JPL/CalTech, USA) and Ritesh Gautam (EDF, USA) discussed satellite measurements and retrieval techniques of atmospheric composition, while Elliot Atlas (U. Miami, USA) and Sachin Ghude (IITM, India) presented methods for sampling trace gases from aircraft and ground-based instruments. Chiara Cagnazzo (ISAC, Italy), Federico Fierli (ISAC, Italy), Mian Chin (NASA/GSFC, USA), and Mary Barth (NCAR, USA) discussed global and regional scale modeling, transport processes and analysis of trace gases and aerosols in relation to the Asian region. Sachin Ghude also discussed emissions inventories and their evaluation.

A highlight of the school was the "Science and Communication Café", in which 3 major topics were addressed. The first was a discussion and exercise on communicating science with the public in the form of a press release. Participants were exposed to methods for effectively translating research findings, involving scientific terms, into non-technical and jargon-free language. The second topic discussed the organization of slides for oral presentations, for instance highlighting the logical balance between size and colors of text and

figures and the importance of finishing a presentation with the summary/conclusion slide as the last slide, so that the audience can view the main points of the presentation during the question and answer period. The third topic was an exercise of creating a "science elevator speech", a clear, brief message about a research finding and its broad significance. These were all interactive exercises with group presentations of press releases by the participants.

Other hands-on activities occurring during the training school were group tasks to propose an aircraft field campaign based on a topic relevant to ACAM, determine the type of instruments needed to address the objectives of the field campaign, and the modeling framework to forecast and analyze field campaign data. These hands-on activities created a collegial camaraderie among the participants and lecturers. The participants were enthusiastic about the "Science and Communications Café" and hands-on activities, suggesting that more time be spent on these practical exercises.

The lectures are posted at the ACAM Training School website, www2.acom.ucar.edu/acam/guangzhou-2017-training-school. The ACAM Training Working Group web page also contains information on other training schools and resources associated with the ACAM topic.

With the contributions from IUGG for geoscience education and outreach for developing countries and all other sponsors listed below, we provided travel support for a total of 27 participants and 2 lecturers (most of them received both airfares and the basic local expenses). The travel sponsorships were provided by IGAC, IAMAS, IUGG, SPARC, WCRP, ICIMOD, China Association for Science and Technology (CAST), Chinese Academy of Sciences (CAS), Key Laboratory of middle Atmosphere and Global Environment Observation of the Institute of Atmospheric Physics (IAP/LAGEO), Nanjing University of Information Science and Technology (NUIST), Jinan University, The Jülich Research Center, NCAR Atmospheric Chemistry Observations & Modeling (ACOM) Laboratory and NASA.



Participants: Bangladesh, China, India, Nepal, Pakistan, Thailand, Vietnam, Norway,

EUFAR/IAMAS/IUGG/ICCP Workshop

On Processing of Cloud Particle Measurements

The analysis of data from recent airborne campaigns showed differences in cloud products including size distributions, bulk cloud properties resulting from different data analysis methods of imaging cloud probes. Hence experts and students from 26 institutions participated in the EUFAR/IAMAS/IUGG/ICCP Workshop on Processing of Cloud Particle Measurements at German Aerospace Center (DLR) to discuss, optimize and harmonize cloud data analysis in order to augment data quality of current optical array probes employed on aircraft. 39 participants from 12 nations met from 7 to 9 July 2017 at the Institute for Physics of the Atmosphere to receive training on cloud probe software and to transfer knowledge on cloud probe data evaluation within the international cloud community.

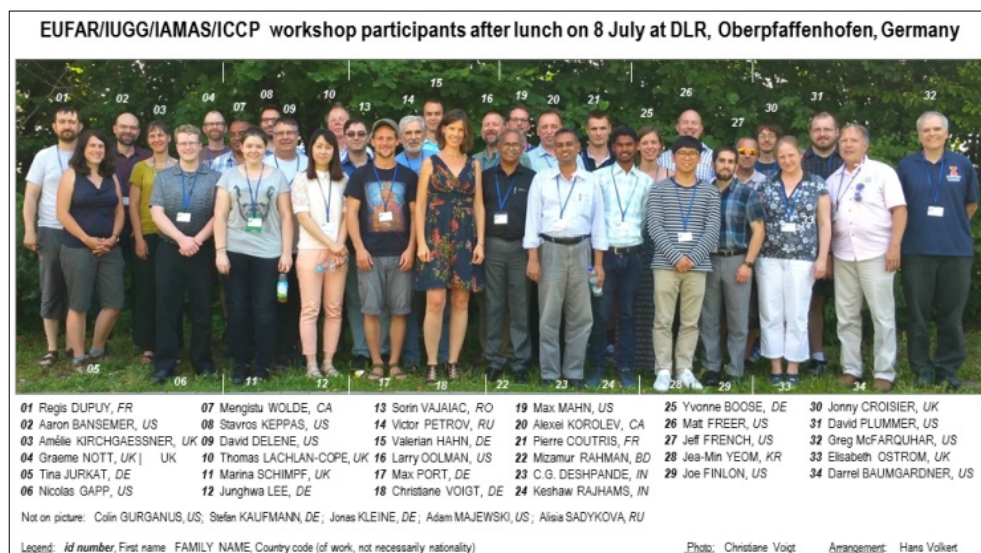
The workshop focused on data analysis of optical array cloud probes and hands-on training with the most commonly used software packages by students and early career scientists who will be working with cloud measurements in the future.

The workshop opened with introductions by Hans Volkert (DLR) for IAMAS/IUGG, Christiane Voigt (DLR) representing EUFAR and Darrel Baumgardner (DMT) for ICCP. In the opening remarks funding by EUFAR, IAMAS, IUGG and ICCP for travel support to attendants was greatly acknowledged. Darrel Baumgardner presented an overview of sensors, their operating principles, limitations of single particle light scattering spectrometers, basic data analysis methods and typical errors. An overview of single particle imaging spectrometers and algorithms to process optical array probe data by Greg McFarquhar (University of Illinois) showed methods for depth of field determination, out of focus particle corrections, particle reconstructions and shattering corrections. These introductory talks set the stage for the scope of the workshop to provide overviews and hands-on training on the individual *cloud probe software packages* currently in use within the cloud community. The training on software packages started with an introduction to the SPEC processing software by Colin Gurganus (SPEC) and the Canadian D2G processing software by Alexei Korolev (ECCC).

The workshop continued on next day with hands-on training in two parallel sessions. The software developers Aaron Bansemer (NCAR, SODA) and Jonny Croisier (U Manchester, OASIS) trained on the SODA and OASIS packages in session I, while Joe Finlon (U Illinois) and Adam Majewski (U Wyoming) presented the University of Illinois and University of Wyoming software programs in session II. The day closed with an overview of the features of the EUFAR EGADS software and data depository by Matt Freer (DMT), which is planned as a future data base for cloud probe processing algorithms. David Delene (U North Dakota) opened session III with an introduction to the University of North Dakota processing package, ADPAA, and a description of the software depository created for airborne cloud instrumentation. Then the status of the AMS monograph on Ice Formation and Evolution in Clouds and Precipitation: Measurement and Modeling Challenges was presented by Darrel Baumgardner and an update on the EUFAR book on Airborne Measurements for Environmental Research (Edt. Breguier and Wendisch) was given by Christiane Voigt.

The final discussion and outlook was guided by Greg McFarquhar with the objectives to create a Steering Committee to oversee software evaluation and standardization, to enhance software availability and to encourage and facilitate software documentation. As an outcome of the workshop, there are plans to submit a joint research proposal to EUFAR/EU/NSF. This might include the formation of an international cooperation for cloud probe data analysis with a step by step instruction on cloud data analysis for two selected data sets of cloud measurements, as well as a simulated test data set. Results will be presented in a workshop preceding the AMS cloud conference in Vancouver, Canada in 2018.

Christiane Voigt (DLR)
Darrel Baumgardner (DMT)
Greg McFarquhar (University Illinois)



2017 AGU Award from IAMAS members

The American Geophysical Union (AGU) has selected its 2017 class of medalists, awardees, and prize recipients. Among the honorees are those scientists, who have been active in IAMAS for many years.

2017 Ambassador Award

Robert A. Duce (USA)
Former President of IAMAS (1995-1999)
IUGG Fellow



The Ambassador Award is given annually to up to five honorees in recognition of "outstanding contributions to one or more of the following area(s): societal impact, service to the Earth and space community, scientific leadership, and promotion of talent/career pool."

He was given the award "for exceptional contributions to the understanding of global biogeochemical cycles and providing crucial leadership to the atmospheric and oceanic sciences community."

2017 Yoram J. Kaufman Unselfish Cooperation in Research Award (Atmospheric Science Section)

Teruyuki Nakajima (Japan)
Secretary General of IAMAS



The Atmospheric Sciences Section of the American Geophysical Union established the Yoram J. Kaufman Unselfish Cooperation in Research Award in 2009. This award is named in honor of Yoram J. Kaufman, an outstanding atmospheric scientist, mentor, and creator of international collaborations who worked on atmospheric aerosols and their influence on the Earth's climate for his entire 30-year career. He is awarded for his achievement of atmospheric radiation science and climate change research.

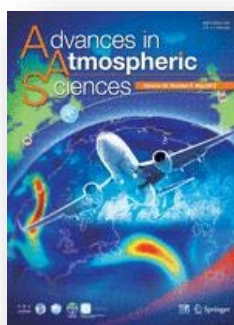
The honorees will be recognized during the Honors Tribute at the 2017 AGU Fall Meeting, which will take place on Wednesday, 13 December 2017, in New Orleans. Congratulations on the Awards!

The Article in AAS's News & Views

Hans Volkert, past Secretary General of IAMAS, published a historical article entitled "Putting faces to names: Snapshots of two committee meetings, 95 years apart, emphasize continuous international cooperation in the atmospheric sciences" in *Advances in Atmospheric Sciences (AAS)*. It underscores the role of IAMAS in international cooperation. You can access at <https://link.springer.com/article/10.1007/s00376-017-6329-6>.

The article is also mentioned at EureAlert!* at https://www.eurekalert.org/pub_releases/2017-04/ioap-aph041217.php.

* EurekAlert! is a service of the American Association for the Advancement of Science.



Upcoming IAMAS-related meetings

◇ 10-15 September, 2017
Past Antarctic Ice Sheet Dynamics (PAIS)
Conference"

Trieste, Italy
Web: <http://pais-conference-2017.inogs.it/>

◇ 18-22 September, 2017
3rd Symposium of the Committee on Space
Research (COSPAR): Small Satellites for
Space Research "COSPAR 2017"
Jeju Island, South Korea
Web: <http://cospar2017.org/>

The IAMAS INFORMATION E-MAIL



We welcome short reports from the Commissions at any time.

IAMAS, General Secretariat
Assistant: Yoshi Sasaki

sasaki.yoshinobu@jaxa.jp

Nozomi Tomizawa

tomizawa.nozomi@jaxa.jp

