



# Chinese-American Oceanic and Atmospheric Association

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## About the COAA

COAA is a member-led, all-inclusive, non-profit, professional association supporting its members and promoting excellence in oceanic and atmospheric sciences and related activities. Members have many opportunities to share information, news, studies and concerns related to the fields of oceanic and atmospheric sciences through board work, submitting correspondence or articles to the COAA Newsletter, leading workshops and making presentations at the Annual Meetings, making contributions to the COAA website, and networking with people in a wide variety of careers (from well-known senior professionals to young environmental enthusiasts).

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## The 8<sup>th</sup> International Conference on Atmosphere, Ocean, and Climate Change held in Nanjing, China

**July 10<sup>th</sup>, 2019 Wednesday** - the 8<sup>th</sup> International Conference on Atmosphere, Ocean, and Climate Change (ICA OCC) was successfully held at the Nanjing University of Information Science and Technology (NUIST) campus. This conference was organized by the Chinese-American Oceanic and Atmospheric Association (COAA) and hosted by **NUIST (南京信息工程大学)**, and co-sponsored by **Nanjing University (南京大学)** and **Boyu Technology Co. Ltd (石家庄博宇科技开发有限公司)**. This is the first time this international conference was held in Nanjing.

The conference focused on global climate change and weather forecasting and covered many hot research topics such as: climate observations and modeling, climate change and adaptation, severe weather, air pollutions, and interactions between the ocean, land, and atmosphere. More than two hundred scientists and their colleagues from all over the world gathered at this conference, including **Yihui Ding**, Academician of China Engineering Academy, **Huijun Wang**, and **Minhan Dai**, Academicians of China Science Academy, and more than 80 international scientists.



**Zhaoyong Guan**, Secretary of the NUIST Party Committee hosted the opening ceremony and gave the opening remarks. During the opening ceremony, **Jianlin Wang**, Deputy Director, Department of Science and Climate Change, China Meteorological Administration; **Beiqun Li**, the president of the NUIST, **Zhe-Min Tan**, Vice president of Nanjing University, and **Cheng-Zhi**

**Zou**, the COAA president all gave speeches to express their best wishes and high expectations of 8<sup>th</sup> ICAOCC.

**Beiqun Li** introduced the long history and current infrastructure of NUIST. He emphasized the NUIST's education philosophy of inclusion and its strong interdisciplinary structure and wide international collaborations. He mentioned that NUIST was honored to host the 8<sup>th</sup> ICAOCC and believed this conference will bring a fast-developing phase to



NUIST's atmospheric science department and would further increase the impact of NUIST.

**Zhe-Min Tan** said that COAA is a highly professional organization that consisted of the world's top ranked atmospheric scientists and was poised to make large contributions to the field. He believes the 8<sup>th</sup> ICAOCC will bring extensive international exchanges and collaborations in atmospheric and oceanic research to Nanjing, promote our understanding of nature through these academic activities, and eventually enhance our contribution to human society.



**Jianlin Wang** praised that COAA has provided a great medium for communication and cooperation among Chinese and international scientists in the field of atmospheric and oceanic research. The 8<sup>th</sup> ICAOCC is a good platform to reflect the global impact of China's atmospheric research. He also mentioned that NUIST and CMA has a long history of collaboration and this relationship will continue and be

strengthened through this conference and the conferences of the future. He hoped that international Chinese Scientists would continue to expand collaborations through COAA, jointly promote the development of China's meteorological service, and strive to narrow the gap between China and the international academic level.

**Cheng-Zhi Zou** introduced COAA, and the preparatory work of this conference. He mentioned that COAA was founded in 1993, organized the first International Congress in 1997 in Washington, D. C, USA, currently has nearly 500 registered members, and was constituted with one main chapter and three local chapters in DC, the Northwest US, Southern California, and Colorado. He expressed that COAA would continue bringing together Chinese experts and scholars in global atmospheric and ocean-related fields, and providing a stable platform to promote the exchange of Chinese scientists worldwide. He thanked the local host NUIST for their thorough preparation for the conference and hoped this conference would further promote interactions among global Chinese scientists.



The three-day conference showcased 150 oral presentations and 40 posters within 11 sessions: including climate observations, Climate Dynamics, Variability and Extremes, Severe Weather and Meso-scale, Climate Modeling, Climate Reanalysis, Ocean Process and Climate, Air pollution, Aerosol, Climate, Integrative Monsoon Frontal Rainfall Experiment, Land-atmosphere Interaction, Climate Change, Impact and Adaptation, and Hydrometeorological Extremes.

On the last day of the conference, ICAOCC also awarded Best Presentation awards to early career scientists: **Xianglin Dai** and **Jing Huang** were both awarded first place, **Yonggen Zhang**, **Yang Yang**, **Tingting Lu**, **Mengjiao Jiang** were all awarded second place, and **Feiyang Wang**, **Chen Zhou**, **Christophen Hui**, **Yuying Wang**, **Xiaoyu Xu** all were awarded third place.



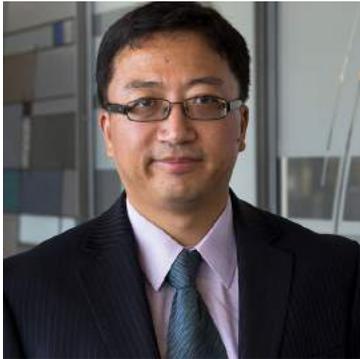
This conference succeeded in bringing global Chinese professionals on ocean and atmosphere science and technology to exchange ideas and experiences in the practical application of innovative sciences and technologies related to ocean and weather observing and forecasting systems, climate change, and global warming. The conference served as the premier platform for experts from all over the world to explore new technologies, inspire new strategies, and identify opportunities for future collaborations with their peers. It also helped senior scientists and engineers to provide helpful information for younger ones to stimulate the knowledge transfer from generation to generation.

(Source: Yingxi Shi, Photo credit: COAA)

### **Call for nomination/volunteer of COAA Spotlight**

“COAA Spotlight” is a column featuring highly successful Chinese scholars and their groups working in the atmospheric, oceanographic or land sciences. This column is designed to share successful senior scientists’ insights and experiences with the COAA members and friends (especially for early-career scientists or students). We now call for the nomination/volunteer for the COAA newsletter to be released in June 2018. You are more than welcome to inform us if you want to be interviewed, or nominate your candidate. Although scientists working aboard with international recognitions will be considered with higher priority, scientists from mainland China, Taiwan, Hongkong, and Macau are also highly encouraged to participate. Please send your recommendations to [news@coaaweb.org](mailto:news@coaaweb.org).

## COAA Spotlight: Dr. Xianglei Huang



**Dr. Xianglei Huang** is currently a tenured faculty member in the Department of Climate and Space Science and Engineering (CLASP) of the University of Michigan – Ann Arbor. **Dr. Huang** received his B.S. degree from the Department of Atmospheric Physics and Environmental Sciences of the University of Science and Technology of China (USTC) in 1997. He received his Master's and Ph.D. degrees from California Institute of Technology in 2000 and 2004, respectively. In 2004, **Dr. Huang** joined the Geophysical Fluid Dynamics Laboratory (GFDL) at Princeton University at a Postdoc supported by the prestigious Atmospheric and Oceanic Sciences (AOS) postdoctoral fellowship. In 2006, **Dr. Huang** joined the University of Michigan as an assistant professor.

**Dr. Huang** has published 66 peer-reviewed journal publications in atmospheric radiation, climate modeling and remote sensing, cloud-radiation-climate interactions, and radiation budgets and radiative couplings between atmosphere and surface. Dr. Huang received NASA Langley's Henry J. E. Reid Award, and AOSS Departmental Outstanding Merit Faculty Award in 2015. He was the associated editor of *Journal of Climate* (2010-2018) and *Journal of Atmospheric and Oceanic Technology* (2007-2016). He currently also serves as an Editor of *Journal of Climate* (since July 2018) and the chair of Atmospheric Radiation Committee of the American Meteorological Society (since Jan. 2019). He is a Co-I of NASA PREFIRE mission, ESA FORUM mission, and a university PI for the DoE E3SM model development projects. He was also a science definition team member for NASA CLARREO mission.

### **Q: How did you decide to study atmospheric/ocean science?**

After the college entrance exam, I chose USTC (University of Science and Technology of China) as my first choice of the school and the earth and space science my first choice of the major. Like many other kids at that age, I did not have a clear idea of what I want to do in the future. Back in childhood, I was inclined to read books about geography and history, maybe that can be counted as a subconscious connection to my choice back then. By the end of the sophomore year, we needed to declare a major within earth and space sciences. I chose atmospheric physics over solid geophysics mainly because we were told that atmospheric physics major has a lighter course load than solid geophysics major, which turn out not be that true. So, you can see it is more or less a random choice.

### **Q: Which accomplishments are you most proud of in your professional life, including your group achievements?**

The one that I am proudest of is a parallel series of studies from my group that established a set of algorithms to derive spectra flux from current hyperspectral observations over the entire globe, and developed a set of radiative kernels to compute spectral details of radiative feedbacks. By this dual effort, we have paved a venue to use hyperspectral observations in climate studies, in a way entirely different from the traditional usages of such observations.

### **Q: Who influenced you the most in your professional life and why?**

I was very fortunate to be tutored by **Prof. Richard Goody** during my junior graduate years and wrote the first paper with him. At that time, he has retired from Harvard and visited Pasadena from time to time. We also frequently communicated via emails when he was not at Pasadena. His genuine curiosity for nature influenced me the most. Equally influenced me is my advisor **Prof. Yuk Yung**, especially his remarkable industriousness and dedications.

**Q: How are you interacting with Chinese-speaking scientists in Asia?**

I regularly attend the Asia Oceania Geosciences Society (AOGS) annual conference, the main venue for me to interact with scientists in Asia. From time to time, I also visited major universities in China. Besides, I have done my sabbatical at RCEC (Research Center for Environmental Change) at Academia Sinica in Taiwan, visited National Taiwan University and National Central University several times.



*Dr. Huang and Prof. Richard Goody*

**Q: What are your perspectives for future direction in our field?**

Our field is fascinating: it has relatively fast-evolving application-oriented topics as well as very theoretical yet longstanding issues. An excellent example of the first kind is the study of carbon emissions and monitoring in recent years. An example of the second kind is the theoretical understanding of MJO. In term of future direction, I think climate observations will have great potential, U.S. or aboard. All in all, we do not have sufficient high-quality observations to test the climate prediction made by models. A satisfactory simulation of climate mean states is only a necessary condition, not a sufficient condition for the validity of model prediction of future climate. It's much more expensive to develop systematic climate observation capacity than to develop a climate model, yet it is something that some agencies or countries must do. Associated

with this, how to integrate observations with model development could be another field with great potential (e.g., recent CiMA project).



*Dr. Huang and his group*

**Q: What is your major advice to young scientists in our field?**

One quote from Albert Einstein that I like a lot is, "If we know what we are doing, it would not have been called research." The curiosity to nature and the perseverance of holding on and getting to the bright end of the tunnel, are equally important.

## COAA 2019 Mid-Autumn Festival Picnic

**September 14<sup>th</sup>, 2019 Saturday** – The 2019 COAA Annual Mid-autumn festival picnic took place at Cabin John Regional Park, Bethesda, MD. More than 60 people, including long-term and new COAA members and their families and friends and visiting scholars from China gathered under the picnic shelter and shared their festival greetings. Attendees enjoyed the relaxed atmosphere and the opportunities to meet with old and new friends. COAA provided a taste of home with many traditional Chinese cuisine and mooncakes. The event ended after the picnic with many people still lingering and continuing their conversations.



COAA 2019 Mid-Autumn Festival Picnic

(Source: Chenxi Wang, photo credit: Yingxi Shi)

## COAA-SCC Executive Committee Transition

The 2019-2020 COAA SCC Executive Committee (EC) has been elected and officially took office on August 10<sup>th</sup>, 2019. The new EC members and their responsibilities are:

<b>President:</b>	<b>Baijun Tian</b> (JPL) - Overall Responsibility
<b>President-Elect:</b>	<b>Yu Gu</b> (UCLA) - Leadership Transition
<b>Vice President:</b>	<b>Yuan Wang</b> (Caltech) - Public Relations
<b>Secretary:</b>	<b>Wenshan Wang</b> (UCI) - Internal Communications
<b>Treasurer:</b>	<b>Yue Huang</b> (UCLA) - Financial Affairs
<b>Webmaster/Newsletter Editor:</b>	<b>Zhaocheng Zeng</b> (Caltech) - Website and Newsletter
<b>Membership Manager:</b>	<b>Zhaoyi Shen</b> (Caltech) - Membership and Registration
<b>Regional Directors:</b>	
	<b>Liyin He</b> (Caltech) <b>Jinbo Wang</b> (JPL)
	<b>Wenshan Wang</b> (UCI) <b>Zhaoxin Ban</b> (UCLA)
	<b>Qinghua Ding</b> (UCSB) <b>Rui Sun</b> (UCSD)
	<b>Feng Zhu</b> (USC) <b>Xiquan Dong</b> (U of Arizona)

## Jonathan H. Jiang wins prestigious awards



**Dr. Jonathan H. Jiang** has received the prestigious **2019 NASA Exceptional Scientific Achievement Medal** and **Jet Propulsion Laboratory (JPL) Ed Stone Award** for significantly enhancing our understanding of impacts of aerosol pollution on convection, clouds, and climate. **Dr. Jiang** is a Principal Scientist and the Group Supervisor of the Aerosol and Cloud Research Group at JPL. He has authored or coauthored more than **170** peer-reviewed scientific research publications and is one of the world leading experts in the Earth and Space Science. He is an Editor for the *Journal of Earth and Space Science* and the *Journal of Geophysical Research -Atmosphere*. He is also the current chairman of the American Meteorological Society's Committee on Atmospheric Chemistry. **Dr. Jiang** obtained his B.S. in Astrophysics from Beijing Normal University, China and his Ph.D. in Atmospheric Physics from York University, Canada.

## Fei Liu wins 2019 NASA Exceptional Scientific Achievement Medal



**Dr. Fei Liu** has received the prestigious **2019 NASA Exceptional Scientific Achievement Medal** for innovation in creating a merged sulfur dioxide emission inventory for air quality and aerosol modeling to support NASA missions, climate and human health studies. She is a research scientist of Universities Space Research Association (USRA) for NASA Goddard Space Flight Center (GSFC). Her major interest is to understand pollutant emissions based on satellite observations of tropospheric composition and their influence on air pollution, atmospheric chemistry and climate. **Dr. Liu** obtained her B.S. in Geobiology from University of Science and Technology of China, China and her Ph.D. in Atmospheric Sciences from Tsinghua University, China.

## COAA Northwest Chapter 2019 Second Social Event

**October 4, 2019 Friday** – As the autumn falls, the COAA-Northwest Chapter (COAA-NWC) celebrated its first anniversary by successfully held a social event on October 4, 2019 in Seattle. Nearly 20 members drove to Seattle from tri-cities in eastern Washington to participate this event. As the part of this social event, **Dr. Ruby Leung**, from Pacific Northwest National Laboratory (PNNL), talked about her career path in PNNL, shared her personal research experience, and suggested “some hindsights” to the audience. She encouraged members to “be optimistic and patient”, and “prepared for opportunities”. She emphasized the importance of communication. The talk was followed by a discussion with the COAA-NWC members at the University of Washington campus. Then, more than 30 members gathered together at a Chinese restaurant nearby for a nice dinner and social.



COAA-Northwest Chapter 2019 Second Social Event

(Source: Fengfei Song, photo credit: Yufei Zou)

## Fellows of the Chinese-American Oceanic and Atmospheric Association

Dear Colleagues and Friends,

This year, COAA established the Fellows program in order to recognize COAA members who have made exceptional contributions to atmospheric, oceanic, and hydrologic sciences and their applications, and/or to the Chinese-American atmospheric/oceanic/hydrologic science communities during a substantial period of years.

### Fellows Criteria

Those eligible for election to COAA Fellow shall be a member of COAA and meet one of the following two criteria:

1. having made outstanding contributions to the atmospheric, oceanic, and hydrologic sciences and their applications;
2. promoting collective success in Chinese-American atmospheric, oceanic, and hydrologic science communities for a substantial period of time.

Nomination to Fellow is open to all COAA Members.

New Fellows are elected each year by the COAA Fellows and Awards Committee consisting of seven distinguished COAA members from COAA's headquarter and regional chapters. Number of fellows elected each year shall not exceed 1 percent of all COAA Members (i.e., normally 1 fellow per year).

Nominations considered by the Committee are those submitted in the current and the preceding two years. Unselected nomination can be updated at the beginning of the next selection cycle.

### Fellows Nomination Procedure

The annual nomination and selection process should start in May and end in November 20<sup>th</sup> of each year. The procedure for Fellow nominations is restricted to electronic submissions. The nominator, a COAA member, is responsible for uploading the entire nomination package. The requirements for nomination packages are:

- A nomination letter limited to two pages (e.g., 12 pts font size, single space);
- Completion of the questionnaire explained below, not to exceed three pages.
- Other optional materials, e.g., letters of support (two letters are recommended which not exceeding 1 page each; maximum three letters).

**The questionnaire:**

- **Bibliographic information:**
  - Nominee's Educational Background
  - Year of entry into a professional position in the atmospheric or oceanic sciences
  - Present Position or Occupation
  - Recent Professional Positions
  - Honors and Awards
  - Area of Expertise
- **Achievements and contributions:**
  - List of significant contributions to COAA
  - List of academic achievements and/or history of promoting collective success in Chinese-American atmospheric, oceanic and hydrologic science communities.

COAA Board 2019