



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 1st COAA Young Scientist Workshop

August 25th, 2018 Saturday – COAA held the first Young Scientist workshop at the Earth System Science Interdisciplinary Center (ESSIC), University of Maryland, College Park, Maryland. More than 25 scientists and students from NOAA, NASA, and local universities attended this event. **Dr. Mian Chin**, president of COAA, opened the workshop and **Dr. Fei Liu**, the event organizer, provided welcoming remarks. **Dr. Mian Chin** emphasized the unique opportunity that provides students and young scholars working in atmospheric and oceanic areas to enhance their presentation and communication skills and to forge professional relationships through their interactions with senior scientists.

The session was chaired by **Dr. Fei Liu**. Seven speakers, **Ms. Jiexia Wu**, **Drs. Jun Zhou, Han Qin, Xun (John) Yang, Manzhu Yu, Junyu Qi**, and **Hui Xu**, gave impressive presentations related to

hydroclimatology, remote sensing, big data, extreme weather, and hydrology. **Ms. Jiexia Wu**, a PhD candidate from program of climate dynamics, George Mason University, talked about using large ensemble data to identify the transition period leading to drought demise. **Dr. Jun Zhou** from ESSIC/UMD gave a presentation about estimating SNPP-ATMS boresight pointing misalignment by using Lunar observations. **Dr. Han Qin**, a managing consultant in a global consulting firm, introduced his previous studies on geocrowdsourced data quality – a comprehensive data quality assessment framework. **Dr. John (Xun) Yang** from ESSIC/UMD gave



Speakers of the COAA 1st Young Scientist Workshop. From the left: **Dr. Han Qin, Dr. Junyu Qi, Dr. Jun Zhou, Dr. Manzhu Yu, Ms. Jiexia Wu, Dr. John (Xun) Yang, and Dr. Hui Xu.**

a talk about a closure analysis of model simulation using reanalysis data and direct satellite observation. After a short coffee break, **Dr. Manzhu Yu** from George Mason University introduced an application for better identifying, tracking, visualizing and analyzing dust storm. **Dr. Junyu Qi** gave an introduction of a watershed scale hydrological model: Soil and Water Assessment Tool (SWAT). The last talk was given by **Dr. Hui Xu**, another researcher from ESSIC/UMD. In this talk, **Dr. Xu** presented a new approach that improves inter-calibration accuracy by filling the gaps of CrIS.

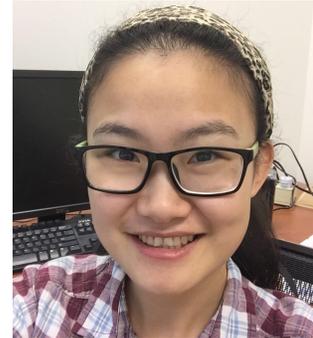
Finally, **Dr. Mian Chin** and **Dr. Fei Liu** expressed their appreciation to all speakers and audience. The COAA 1st Young Scientist Workshop was a big success. This workshop was designed to create a forum for all students and young scientists to have access to the latest science information on a wide variety of topics.

(Report and photos provided by Chenxi Wang)

Bio-Sketches of Speakers

- **Ms. Jiexia Wu** (George Mason University)

Ms. Jiexia Wu is a PhD candidate from program of climate dynamics, George Mason University. Her research interest is mainly in the field of hydroclimatology and extreme weather. Her dissertation focuses on identifying the transition period leading to drought demise using precipitation and soil moisture based on CESM large ensemble data and also MERRA2 reanalysis data. Also the potential causes for drought demise are estimated as a function of season and location. The attributions she has studied are Tropical Cyclone, Atmospheric Rivers and land atmosphere interactions. In future work, she would like to estimate the impact of other possible causes such as MJO, circulation regimes and also ocean remote effects.



- **Dr. Jun Zhou** (ESSIC/UMD)



Dr. Jun Zhou received the Ph.D. degree from the Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing, China, in 2010. From 2010-2014, she was a research assistant with Institute of Atmospheric Physics, Chinese Academy of Sciences, studying on developing a cloud tomography algorithm to retrieve 3D cloud liquid water distribution from airborne microwave radiometer. In 2015, she was invited to visit Global Systems Division of the Earth System Research Laboratory, NOAA, Boulder, CO, USA, focusing on improving cloud analysis procedure in data assimilation system. Since 2015, she has joined the Earth System Science Interdisciplinary Center, University of Maryland College Park, where she is involved in the NPP/JPSS Advanced Technology Microwave Sounder geolocation and validation. Her research interests include passive microwave remote sensing, satellite data assimilation, and satellite geolocation and validation. In the COAA 1st Young Scientist Workshop, **Dr. Jun Zhou** gave a presentation about estimating SNPP ATMS boresight pointing misalignment by using Lunar observations. This new method, being capable of retrieving boresight pointing Euler angle yaw from space view observations, is a supplement to the geolocation evaluation algorithm based on ground targets.

- **Dr. Han Qin** (Ankura)

Dr. Han Qin is Managing Consultant in a global consulting firm in Washington, D.C., where he provides geospatial computing, machine learning, and custom development services. He earned his Ph.D. in 2017 from George Mason University, where he worked on quality assessment strategies and protocols in geocrowdsourcing



applications. Prior to his PhD, Han earned an MS degree from Eastern Michigan University focused on Health GIS and web mapping, and an undergraduate computer software engineering from Wuhan University (Hubei, China). His topic in the COAA 1st Young Scientist Workshop is “Pedestrian Network Repair with Spatial Optimization Models and Geocrowdsourced Data”. In this presentation, he briefly introduced his previous studies on geocrowdsourced data quality – a comprehensive data quality assessment framework to collect and validate high accurate information from crowdsourcing, and presented a modeling methodology to identify high-value routing corridors in a dynamic geocrowdsourced accessibility system that could help civic employees from city public works and transportation departments prioritize maintenance of a pedestrian infrastructure, including the rectification of obstacles identified through crowdsourcing.

LinkedIn: <https://www.linkedin.com/in/han-qin-98a9106a/>

Google Scholar: <https://scholar.google.com/citations?user=3eqL8bsAAAAJ&hl=en>

- **Dr. John (Xun) Yang** (ESSIC/UMD)



Dr. John (Xun) Yang is a remote sensing scientist at Earth System Science Interdisciplinary Center (ESSIC) of the University of Maryland. His research interest is Earth remote sensing. He received the PhD degree from the University of Michigan. He presented the study of atmospheric water vapor. In his presentation, he showed the difference in water vapor between reanalysis and satellite. Although reanalysis data have been widely used for satellite calibration, there are biases and uncertainties in the reanalysis due to model mechanism, parametrization, and assimilation skills. In contrast, an observational dataset from Global Precipitation Measurement (GPM) has been used. The dataset exhibits different water vapor profiles and weighting functions from reanalyses. It outperforms reanalysis in some aspects.

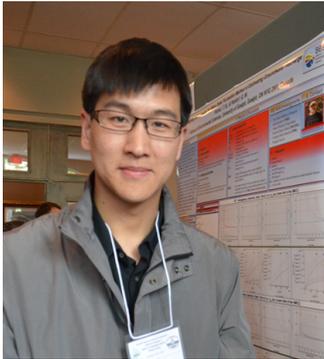
- **Dr. Manzhu Yu** (George Mason University)

Dr. Manzhu Yu received her bachelor's degree in Remote Sensing from Wuhan University in 2012 and Ph.D. degree in Earth Systems and Geoinformation Sciences from George Mason University in Fall 2017. Her research mainly focuses on the core areas of GIScience and outreach to environmental science and computational science. Her dissertation uses dust events as an example to detect extreme weather events using spatiotemporal methodologies and techniques. Her dissertation research won first place in the Best Paper Competition at the Second International Symposium on Spatiotemporal Computing in Boston in August 2017. She authored and co-authored 18 publications in top-tier journals including International Journal of Geographic Information Science (IJGIS), Computers, Environment and Urban Systems (CEUS), and PLoS ONE. She is also the second author of a textbook and author of multiple book chapters. She has applied and received funding as a Co-I for multiple projects from NASA and NSF. She devotes herself to professional services supporting the communities of GIScience, by serving as the



organizing committee for meetings (e.g., AAG Spatiotemporal Symposiums) and international workshops over the past four years. Currently, she works as a postdoc research associate at the NSF Spatiotemporal Innovation Center. She's working on spatiotemporal analytics, deep learning, remote sensing, big spatial data and cloud computing, and the application of these to solve pressing environmental issues.

- **Dr. Junyu Qi** (ESSIC/UMD)



Dr. Junyu Qi obtained a B.E. degree with a major in Hydrology and Water Resources Engineering from China University of Geosciences, Beijing in 2007. He then attended Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (CAS) as a Research Associate working on Water and Soil Conservation. He obtained a M.S. degree majoring in Physical Geography in 2010 from CAS. **Dr. Junyu Qi** completed a PhD in 2017 at University of New Brunswick with a major in Hydrology. During his study as a PhD student, he developed physically-based soil temperature and snowmelt modules in Soil and Water Assessment Tool (SWAT) resulting in great improvement in SWAT application for cold regions. Dr. Qi comes to ESSIC in May 2017 as a Postdoctoral Associate working on SWAT application and modification. Research interests include remote sensing data assimilation with hydrological models, surface heat and water transfer processes modeling and biogeochemical modeling.

- **Dr. Hui Xu** (ESSIC/UMD)

Hui Xu received his Ph.D. degree in Signal and Information Processing from Institute of Remote Sensing and Digital Earth (RADI), Chinese Academy of Sciences (CAS), Beijing, China, in 2013, the M.Eng. in Spatial Data Processing and Analysis and the B.Sc. degree in Computer Science and Technology from Henan University in 2010 and in 2007, respectively. He is currently a Post-Doctoral Associate with ESSIC/CICS-MD. At ESSIC/CICS-MD, he works on satellite infrared soundings calibration and validation.



COAA Northwest Chapter (NWC) is officially established

September 28, 2018 Friday, the Chinese-American Oceanic and Atmospheric Association Northwest Chapter (COAA-NWC) was officially established in its inaugural party held at the China First restaurant in Seattle, in conjunction with celebration of the traditional Chinese holiday, the Mid-Autumn Festival. There were 39 people who attended this event with 12 of them driving several hours from Tri-cities, eastern Washington.

The event started by an opening speech from the COAA-NWC founding president, **Dr. Muyin Wang**. In her speech, she welcomed all attendees and introduced the mission and history of COAA. She then introduced current board members of COAA-NWC: the vice-president, **Dr. Hailong Wang**, the secretary **Dr. Fengfei Song**, and the treasure and web-master, **Willa Zhu**. She also thanked everyone's support and enthusiasm. All attendees did a short self-introduction before dinner started. During the event, five senior scientists invited by the board, **Dr. Shu-Yi Chen**, **Dr. Qiang Fu**, **Dr. Ren-Chieh Lien**, **Dr. Yun Qian**, and **Dr. Chidong Zhang**, shared their career experiences and provided suggestions for graduate students and early-career scientists. Young scientists learned a lot from their sharing, asked many questions, and also gave them applause many times.

The event ended with a raffle drawing. The youngest attendee, a two and half year-old girl, daughter of our designated photographer, **Dr. Zhe Feng**, was asked to draw three raffle tickets one after another. Amazingly, all three winning tickets went to attendees sitting near her, and the grand prize winning number went to the little girl's mother!

Very happy ending.



Group photo of all attendees



The president, **Dr. Muyin Wang**, (standing in far background) addresses to the attendees during the event

Many members were still excited even after the event was formally ended. They stayed in the restaurant to continue chatting with each other in various groups. We are grateful that the China First closed their business for the evening for us to use the place and served delicious food. We are also thankful to the employees of China First who graciously allowed for the extended social time after their normal business hours.

The COAA Northwest Chapter now proudly has 41 registered members, including three lifetime members and 10 student members. The Northwest Chapter will continue growing and building strong ties among our members.

(Report and photos provided by Muyin Wang)

Announcement of the COAA-SCC Fall Workshop

The Chinese-American Oceanic and Atmospheric Association-Southern California Chapter (**COAA-SCC**) is pleased to announce the fall workshop to be held on **September 29, 2018**. The workshop aims to provide an opportunity for students and scientists to enhance their collaborations.

DATE: September 29, 2018

TIME: 10:30 a.m. - 6:30 p.m. (PST).

LOCATION: Ellison Hall 3621, University of California, Santa Barbara

COAA 2018 Mid-Autumn Festival Picnic

September 15th, 2018 Saturday – The 2018 COAA Annual Mid-autumn festival picnic took place at Cabin John Regional Park, Bethesda, MD. More than 40 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.



The 2018 COAA Mid-Autumn Festival Picnic

(Source: Chenxi Wang, photo credit: Jianhe Qu and Chenxi Wang)

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.

Invitation to renew your COAA membership

Dear COAA members,

As you may already know from many COAA activities, COAA is a non-profit organization comprised of more than 600 Chinese-American scholars working in the United States on Earth sciences. COAA dedicates its activities to promote science through communications and mentoring young scholars. As part of your COAA membership, you will receive the following benefits:

- Networking with your peers and other professionals
- Receiving regular COAA newsletters and notifications of COAA events
- Participating COAA organized seminars, conferences, and social events
- Travel grant opportunities for COAA Conferences
- Enjoying special member price for attending COAA conferences, COAA reception banquets, and other activities

Your participation and dues make these and other valuable COAA services possible. To improve the COAA experience for its members, we invite you to renew membership for 2018 as:

- Regular: \$10/year
- Student: \$5/year
- Life: \$200
- Corporate: \$500/year

You can renew your membership online through the link below:

<http://www.coaaweb.org/membersonly.php> (although you may not get an automated confirmation email, your payment will go through. If you want to make sure you may contact the treasurer or membership coordination to confirm the payment. Their contact information can be found at: <http://www.coaaweb.org/team.php>). You may also pay your membership dues during any COAA activities throughout the year.

If you do not plan to renew, please send us a quick email and we'll take you off the list. In either case, we would appreciate any feedback you are willing to share regarding your decisions on renewing COAA membership.

Thank you for your support for COAA and we are looking forward to seeing you at upcoming events!

Best regards,
COAA Board 2018