

**The 9th COAA International Conference on Atmosphere, Ocean, and  
Climate Change (ICAOCC23)**

**July 27-28, 2023  
Singapore**

**Day 1 July 27<sup>th</sup>**

<b>8:30-9:00</b>	<b>Check in / Morning Refreshments</b>	
<b>9:00-10:05</b>	<b>Plenary Session (Host: Yingxi Shi, Jingyu Wang)</b>	
9:00-9:10	Benjamin Horton	Welcome Remarks and Introduction of EOS
9:10-9:20	Hugh Zhang	Introduction to CCRS
9:20-9:25	Chun-Chieh WU	Remarks from the AOGS President
9:25-9:30	Xianfeng Wang Jingyu Wang	Logistics
9:30-9:45	Yuekui Yang	Introduction of COAA
9:45-9:55	Xiquan Dong	Introduction of COAA Regional Chapters
9:55-10:05	Xiaowen Li	Greetings from COAA former presidents
<b>10:05-10:30</b>	<b>Tea Break</b>	
<b>10:30-12:15</b>	<b>Past, Current, and Future Climate (Host: Yuekui Yang, Kyu-Myong Kim)</b>	
10:30-10:45	Muyin Wang	Future Arctic as seen from CMIP6 models
10:45-11:00	Lu Dong	Roles of the Interdecadal Pacific Oscillation and Double-ITCZ in Uncertainty of California Precipitation Changes
11:00-11:15	Zhanqing Li	Climate changes, air pollution and their interactions in China
11:15-11:30	Bin Zhu	Quantitative identification of moisture sources over Northwest of China in Summer and the Annual Variations in Dry & Wet years
11:30-11:45	Ji Nie	Continental drift shifts tropical rainfall by altering radiation and ocean heat transport
11:45-12:00	Fengfei Song	The seasonal delay of tropical rainfall in a warming climate

12:00-12:15	Xianfeng Wang	Decadal sea surface temperature changes in the tropical Indian Ocean
12:15-13:45	<b>Lunch Break</b>	
13:45-15:30	<b>Atmospheric Chemistry and Environment (Host: Mian Chin, Chuanfeng Zhao)</b>	
13:45-14:00	Yuying Wang	Different effects of anthropogenic emissions and aging processes on the mixing state of soot particles in the nucleation and accumulation modes
14:00-14:15	Yang Yang	Climate-driven changes in future aerosols and ozone using a machine learning method with multi-source data
14:15-14:30	Yang Gao	The impact of climate change on extreme weather events and ozone pollution based on a high-resolution earth system model
14:30-14:45	Wenbin Kou	Enhanced downward surface solar radiation conducive to persistent ozone pollution in fall under a warming climate
14:45-15:00	Zhangcai Qin	Will bioenergy production reduce emissions of air pollutants
15:00-15:15	Mian Chin	Trends and interannual variability of CO and aerosols in the upper troposphere and their connections to the Asian summer monsoon dynamics, climate variability, and surface pollutant emissions
15:15-15:30	Jariya Kayee	Chemical composition and distribution of atmospheric aerosols in the Gulf of Thailand
15:30-16:30	<b>Group Photo + Tea Break + Poster Session</b>	
16:30-17:45	<b>Extreme Weather and Climate Disasters (Host: Hui Su, Xiaowen Li)</b>	
16:30-16:45	Eun-Soon IM	Characterization of temperature and humidity effects on extreme heat stress under global warming and urban growth in southeast China
16:45-17:00	Xiaoming Shi	Using AI and Convection-Permitting Simulation to Assess Tropical Cyclone Response to Warming
17:00-17:15	Jingyu Wang	Soil Moisture Observations from Shortwave Infrared Channels Reveal Tornado Tracks
17:15-17:30	Chung-Hsiung Sui	Dynamic and thermodynamic processes in regulating

		the decay paces of El Niño events in Community Earth System Model Version 2 (CESM2)
17:30-17:45	Hui Su	Applying Sea Surface Salinity Observations to Improve Tropical Cyclone Rapid Intensification Forecast
17:45-18:00	Sophal Try	Investigating the Impacts of Climate Change on Extreme Floods in the River Basins Across Taiwan Using d4PDF Data Experiment
<b>18:00-21:00</b>	<b>Poster Discussion + Dinner</b>	

## Day 2 July 28<sup>th</sup>

<b>8:30-9:00</b>	<b>Morning Refreshments</b>	
<b>9:00-10:45</b>	<b>Aerosol, Cloud, and Precipitation I (Host: Oleg Dubovik, Hongbin Yu)</b>	
9:00-9:15	Chuanfeng Zhao	Impacts of dust aerosols on cloud formation time
9:15-9:30	Oleg Dubovik	Generation of enhanced aerosol product from satellite polarimetry and utilization for constraining climate models and global forcing estimates
9:30-9:45	Yi Wang	Characteristics of Daytime-and-Nighttime AOD Difference over China: A Perspective from CALIOP Satellite Observations and GEOS-Chem Model Simulations
9:45-10:00	Robert levy	The Dark Target aerosol project: Combining LEO and GEO satellites for monitoring rapid aerosol changes on a global scale
10:00-10:15	Hongbin Yu	The Modeling of Global Dust Cycle - An AEROCOM Multi-model Analysis
10:15-10:30	Chunsong Lu	Radiation fog properties in two consecutive events under polluted and clean conditions in the Yangtze River Delta, China: A simulation study
10:30-10:45	Yingxi Shi	Retrieving Rapid-evolving Smoke Absorption Using Critical Reflectance Methods with Geostationary Observations
<b>10:45-11:05</b>	<b>Tea Break</b>	
<b>11:05-12:35</b>	<b>Radiation and Climate (Host: Chung-Hsiung Sui, Robert Levy)</b>	

11:05-11:20	Guangxing Lin	Superparameterization improves simulations of mesoscale convective systems in E3SM
11:20-11:35	Minghui Tao	Satellite Aerosol Retrieval Algorithm for Multi-angle Polarimetric Measurements Over East Asia
11:35-11:50	Shuyan Wu	Roles of Tropical SST Anomalies in Modulating Interannual Variability of the Western North Pacific Anticyclone
11:50-12:05	Xiaoguang Xu	Recent Updates and Applications of the UNL-VRM Remote Sensing Testbed
12:05-12:20	Qiang Fu	Tropical Tropopause Layer Cirrus Clouds and Their Relations to Large-scale Dynamical Processes
12:20-12:35	Shi Chong	Remote sensing of aerosols and surface solar radiation from new satellite imagers
<b>12:35-13:50</b>	<b>Lunch Break</b>	
<b>13:50-15:20</b>	<b>Ocean Process and Ocean-Land-Atmosphere Interactions (Host: Xianfeng Wang, Meng Gao)</b>	
13:50-14:05	Kondrashov Dmitri	Novel machine learning approach for accurate data-driven prediction of Arctic Sea ice
14:05-14:20	Meng Gao	Advancing aerosol remote sensing over ocean using PACE multi-angle polarimetric measurements
14:20-14:35	Dhrubajyoti Samanta	Dynamic sea-level change in Southeast Asia by the end of the 21st century
14:35-14:50	Yang Song	Biological and hydraulic controls on soil water dynamics and its implication for Arizona grassland carbon cycle under changing hydroclimate
14:50-15:05	Lin Ke	Influences of East Asian winter monsoon and ENSO variability on the Kuroshio intrusion to the South China Sea over the past 70 years
15:05-15:20	Qinlu Gu	Diverse impacts of ENSO on summertime synoptic-scale disturbance intensity over the tropical western North Pacific
<b>15:20-15:45</b>	<b>Tea Break</b>	
<b>15:45-17:30</b>	<b>Aerosol, Cloud, and Precipitation II (Host: Xiaoguang Xu, Chunsong Lu)</b>	

15:45-16:00	Xiaowen Li	Aerosol Impacts on Atmospheric Convection Using Idealized Cloud-Resolving Simulations
16:00-16:15	Steve Yim	Assessing local emission sources and transboundary air pollution contributions to air quality in Southeast Asia
16:15-16:30	Xiangzhong (Remi) Luo	Slower changes in vegetation phenology than precipitation seasonality in the dry tropics
16:30-16:45	Xiquan Dong	MBL cloud and drizzle profiles and their application in warm rain processes
16:45-17:00	Yuekui Yang	Applications of Oxygen A- and B-band Observations in DSCOV-EPIC Cloud Retrievals
17:00-17:15	Yikun Yang	Cloud macrophysical parameters retrieval using the CALIPSO and Himawari-8 data
17:15-17:30	Yue Sun	Distinct impacts of aerosol on precipitation time and vertical precipitation rate
17:30-17:45	<b>Closing Remarks</b>	

## Posters

Wen Hui	Lightning Activity in China and Its Optical Characteristics Observed by Geostationary Satellite
Qian Wang	The plans and preliminary performance for the Ozone Monitoring Suite - nadir Instrument on Feng-Yun -3F
Li Xiuming	High-frequency Contribution to Changes in the Marine Heatwaves in the Marginal Sea of China
Jianmin Zhang	Influences of Tropical Pacific and North Atlantic SST Anomalies on Summer Drought Over Asia
Li Zhigang	Quantitative assessment of the impact of biomass burning episodes on surface solar radiation using machine learning technology: A case study of a pollution event in Beijing
Chenlu	Hygroscopic growth of ambient fine particles measured at five sites in China
Wen-Jun Zhang	Why does extreme precipitation occur near Borneo in both El Niño and La Niña winters?
Kyu-myong Kim	Formation and propagation of atmospheric river in the North Pacific and its impact on extreme rain events in the western US during boreal winter
Dong Luojie	Understanding the Key Drivers to the 'Once-in-100-years' Flood
Ji Hanyi	Data Fusion Based Monitoring of the Air Pollution Evolution in Southeast Asia Using Satellite Observations

Wong Minn Lin	The role of ENSO on tropical South American precipitation during the mid-Holocene.
Zhang Yilin	Evolution of Precipitation Triple Oxygen Isotopes during Monsoon Cold Surges in Singapore: Implications for Evaluating Tropical Convection
Qiu Wanyin	Oxygen isotope variability in precipitation, dripwater, and modern calcite responding to ENSO based on 11 years' monitoring in Yuhua Cave, Southeast China
Wei Jia	The spatial patterns of triple oxygen isotopes in tap water from Southeast and South Asia
Dampal Ranawaka	Modified method for trace metal determination in seawater in Singapore
Gonzalo Carrasco	Zinc bioavailability in the Malacca Straits, Singapore, southern South China Sea and coastal Borneo: a measure of economic progress in Southeast Asia and (some) of its environmental impacts
Liu Mengqi	Value-Added Products Derived from 15 Years of High-Quality Surface Solar Radiation Measurements at Xianghe, a Suburban Site in the North China Plain