









# The First International Conference on Chemical Weather and Chemical Climate (CWCC) Science, Risks, Impacts, Health and Governance Associated with Multi-scale Environmental Perturbations

October 16-20, 2023, Shanghai, China

# Second Circular



The first International Conference on Chemical Weather and Chemical Climate (CWCC), themed "Science, Risks, Impacts, Health and Governance Associated with Multi-scale Environmental Perturbations", jointly hosted by the World Meteorological Organization/Global Atmosphere Watch Programme (WMO/GAW), the Monitoring, Analysis, and Prediction of Air Quality International Research Program (MAP-AQ), the Integrated Research on Disaster Risk International Program (IRDR), and Fudan University, along with support from various international and domestic institutions, will be held in Shanghai from October 16<sup>th</sup> to October 20<sup>th</sup>, 2023.

The conference, organized by the Fudan IRDR International Centre of Excellence and the MAP-AQ Asian Office Shanghai, aims to review significant advancements in related disciplines and interdisciplinary research. It will provide a deeper understanding of the interconnections between climate change, weather/climate extremes, air quality, and population health, as well as their implications for the climate and environmental governance processes necessary to achieve the target of carbon neutrality and the Sustainable Development Goals. Scholars, experts, and practitioners, both from domestic and international institutions, will be invited to participate in the conference through keynote speeches, thematic presentations, roundtable discussions, collaboration consultation, and outstanding young scientist awards, fostering academic exchange and exploration to address the risk interconnectivity of the interdisciplinary and crosscutting issues for better climate and

environment governance. The conference warmly welcomes the participation of researchers, technical personnel and practitioners from universities, institutes, and enterprises, as well as postgraduates. It also extends a sincere invitation to domestic and international institutions, universities, enterprises, and NGOs to support the conference in various capacities and resources. For further details, please liaise with the designated contact person in the second-round circular of the conference.

## 1. Key Dates

#### Deadline for abstract submission: August 10, 2023

Deadline for early-bird Registration: September 30, 2023

On-site Registration Day: October 16, 2023

Time	October 16	October 17	October 18	October 19	October 20
08:30-09:30		Opening ceremony	Sessions I-VI in	Plenary Session II	Cooperation & Exchange &Visit
09:30-10:10		Plenary Session I	parallel	Outcomes of sessions: sharing and discussion	
10:10-10:35		Break	Rreak	Break	
10:35-12:15	On-site registration, venue set-up, committee	Plenary Session I	Sessions I-VI in parallel	Plenary Session II Outcomes of sessions: sharing and discussion	
12:15-14:00	preparatory meetings	Lunch & Poster Session	Lunch & Poster Session	Lunch & Poster Session	
14:00-18:30		Sessions I-VI in parallel	Session VII-IX in parallel (Roundtable Discussion)	Plenary Session III Best Young Scientists Award Chair's Report and Closing Ceremony	
18:30-20:00		Welcome dinner	Dinner		

## 2. Academic Committee (in alphabetical order of surname)

#### Chairs:

- Renhe Zhang, Fudan University
- Guy Brasseur, Max Planck Institute for Meteorology, Germany, and National Center for Atmospheric Research
- Jürg Luterbacher, World Meteorological Organization

#### **Members:**

- Alexander Baklanov, World Meteorological Organization
- Greg Carmichael, University of Iowa/WMO Global Atmospheric Watch Program
- Jianmin Chen, Fudan University
- Jianfeng Feng, Fudan University
- Johannes Flemming, European Centre for Medium-Range Numerical Prediction (ECMWF)/ WMO Global Air Quality Forecasting and Information System (GAFIS)
- Christian Alain George, Institut de Recherches sur la Catalyse et l'Environnement de Lyon (IRCELYON, CNRS) in Lyon, France
- Huadong Guo, Aerospace Information Research Institute, Chinese Academy of Sciences
- Tomas Halenka, Charles University, Czech Republic
- Shiro Hatakeyama, Asian Center for Air Pollution Research
- Kebin He, Tsinghua University
- Hartmut Herrmann, Leibniz Institute for Tropospheric Research, Leibniz, Germany
- Ho Kim, Seoul National University, South Korea
- Haidong Kan, Fudan University
- Rajesh Kumar, National Center for Atmospheric Research
- Hong Liao, Nanjing University of Information Science and Technology
- Mu Mu, Fudan University
- Gunter Schumann, Charetti Medical University/Fudan University
- Albert Sulaiman, National Research and Innovation Agency of Indonesia
- Xu Tang, UNOCHA and UNEP Joint Expert Network of Environmental Disasters and Humanitarian Assistance
- Lin Wang, Fudan University
- Zhiping Wen, Fudan University
- Tong Zhu, Peking University
- Xiaoye Zhang, Chinese Academy of Meteorological Sciences

## **3. International Organizing Committee** (in alphabetical order of surname)

#### **Chairs:**

- Renhe Zhang, Fudan University
- Guy Brasseur, Max Planck Institute for Meteorology, Germany, and National Center for Atmospheric Research
- Jürg Luterbacher, World Meteorological Organization

#### **Members:**

- Sara Basart, World Meteorological Organization
- Jianmin Chen, Fudan University
- Wenjia Cai, Tsinghua University
- Gantuya Ganbat, Mongolian Institute of Resource Technology
- Qunli Han, International Programme Office for Integrated Research on Disaster Risk
- Suresh Jain, Tirupati Institute of Technology, India
- Sri Harsha Kota, Institute of Technology Delhi, India
- Harish Phuleria, Institute of Technology, Mumbai, India
- Syarif Mochammad Romadhon, National Research and Innovation Agency, Indonesia
- Huiling Ouyang, Fudan IRDR International Centre of Excellence
- Lu Ren, World Meteorological Organization
- Xu Tang, UNOCHA and UNEP Joint Expert Network of Environmental Disasters and Humanitarian Assistance
- Xiaoyan Wang, MAP-AQ Asian Office Shanghai
- Meihua Zhu, Department of Atmospheric Research, Asian Air Pollution Research Center
- Wen Zhou, Fudan University
- Hongliang Zhang, Fudan University

#### **4. The Local Organizing Committee** (in alphabetical order of surname)

#### **Coordinator:**

• Jianmin Chen, Fudan University

#### Vice-coordinators:

- Zhiwei Wu, Fudan University
- Haidong Kan, Fudan University
- Xu Tang, UNOCHA and UNEP Joint Expert Network of Environmental Disasters and Humanitarian Assistance
- Hongliang Zhang, Fudan University

### **Members:**

- Weigiang Chen, Institute of Urban Ring, Chinese Academy of Sciences
- Shengmei Ding, Fudan IRDR International Centre of Excellence
- Cathy Li, Max Planck Institute for Meteorology, Germany
- Cong Liu, Fudan University
- Huiling Ouyang, Fudan IRDR International Centre of Excellence
- Lu Ren, World Meteorological Organization
- Li Wang, Fudan University
- Rong Wang, Fudan University
- Yutao Wang, Fudan University
- Xiaoyan Wang, MAP-AQ Asian Office Shanghai
- Bo Yao, Fudan University
- Jiacan Yuan, Fudan University
- Xingnan Ye, Fudan University
- Liwu Zhang, Fudan University
- Feng Zhang, Fudan University
- Yijun Zhang, Fudan University

# 5. Plenary talks (subject to updating)

# I Air Quality and Climate: Science and Society Challenges for Sustainable Development Invited speakers:

• Jenny Stavrakou, Royal Belgian Institute for Space Aeronomy (BIRA-IASB)

Presentation Title: Lessons learnt and future prospects in air quality, emissions and chemical climate research

• Xiaoye Zhang, Chinese Academy of Meteorological Sciences

Presentation title: TBD

# II Air Quality and Public Health: Science and Society Challenges for Sustainable Development Invited speakers:

• Lidia Morawska, International Air Quality and Health Laboratory (Online)

Presentation Title: TBD

• Tong Zhu, Peking University

Presentation Title: Maximizing the Health Benefits of Air Pollution Control and Climate Change Mitigation

# III Smart City Development: Science and Society Challenges in Sustainable Development Invited speakers:

• Greg Carmichael, University of Iowa/WMO Global Atmospheric Watch Program

Presentation Title: TBD

• Tao Wang, The Hong Kong Polytechnic University

Presentation Title: TBD

#### IV Global Governance to Achieve Carbon Neutrality and Clean Air

#### **Invited speakers:**

• Markku Kulmala, University of Helsinki, Finland (Online)

Presentation Title: TBD

• **Kebin He**, Tsinghua University

Presentation Title: TBD

### **6. Sessions** (subject to updating)

Session I: Emissions and physical-chemical transformations of atmospheric components

**Description:** Focusing on the critical issues and recommendations on emissions and physical-chemical transformations of atmospheric components:

- 1) Measurement of emissions and development of inventories
- 2) Understanding atmospheric transformations and their impacts
- 3) Identifying emission reduction strategies

#### Chair/Co-Chair:

- Greg Carmichael, University of Iowa/WMO Global Atmospheric Observing Program
- Lin Wang, Fudan University

#### **Conveners:**

- Defeng Zhao, Fudan University
- Bo Yao, Fudan University
- Yele Sun, Institute of Atmospheric Physics, Chinese Academy of Sciences
- Xinlei Ge, Nanjing University of Information Science and Technology
- Meng Gao, Hong Kong Baptist University

**Invited Speakers:** (to be updated)

Session II: Simulation and Forecasting of Chemical Weather/Climate and Its Impacts

**Description:** Focusing on the critical issues and recommendations on simulation and forecasting of chemical weather/climate and its impacts:

- 1) Improving modeling capabilities;
- 2) Forecasting extreme events;
- 3) Assessing impacts on ecosystems and human health.

## Chair/Co-Chair:

- Xiaoye Zhang, Chinese Academy of Meteorological Sciences
- Rajesh Kumar, National Center for Atmospheric Research

#### **Convenors**:

- Peng Wang, Fudan University
- Yan Zhang, Fudan University
- Yuchao Gao, Fudan University
- Xin Huang, Nanjing University
- Jianlin Hu, Nanjing University of Information Science and Technology

**Invited Speakers:** (to be updated)

**Session III:** Environmental and health impact of air quality, climate change, and weather/climate extremes **Description:** Focusing on the critical issues and recommendations on environmental and health impact of air quality, climate change, and weather/climate extremes:

- 1) Assessing health risks of air pollution, climate change
- 2) vulnerability and adaptation
- 3) Ecosystem Impact of extreme weather/climate

4/9

#### Chair/Co-Chair

- Mu Mu, Fudan University
- Gunter Schumann, Charetti Medical University/Fudan University

#### **Conveners:**

- Wen Zhou, Fudan University
- Xiaoyan Wang, MAP-AQ Asian Regional Office
- Jicheng Gong, Peking University
- Siyu Chen, Lanzhou University
- Feng Zhang, Fudan University

**Invited Speakers:** (to be updated)

# Session IV: Advancing strategies to reduce climate-environment-health inequalities

**Description:** Focusing on the critical issues and recommendations on strategies for reducing inequities:

- 1) Environmental justice;
- 2) Access to clean air and climate services
- 3) Multi-stakeholder participation and decision-making

#### Chair/Co-Chair:

- Huadong Guo, Aerospace Information Research Institute, Chinese Academy of Sciences
- Qian Wang, United Nations Environment Programme

### **Conveners:**

- Renjie Chen, Fudan University
- Ruwei Hu, Sun Yat-Sen University
- Wei Xia, Huazhong University of Science and Technology
- Syarif Mochammad Romadhon, BRIN, Indonesia;
- Sri Kota, Indian Institute of Technology, Delhi

**Invited Speakers:** (to be updated)

## Session V: Towards mitigation and adaptation to environmental changes

**Description:** Focusing on the critical issues and recommendations on towards mitigation and adaptation to environmental changes:

- 1) Science-based mitigation strategies;
- 2) Nature-based adaptation measures;
- 3) Synergies and trade-offs.

#### Chair/Co-Chair:

- Shiro Hatakeyama, Asian Center for Air Pollution Research (ACAP)
- Gang Yan, Environmental Planning Institute, Ministry of Ecology and Environment

## **Conveners:**

- Zhiyan Zuo, Fudan University
- Guoxing Chen, Fudan University
- Yuqiang Zhang, Shandong University
- Jianzhong Xu, Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences
- Xue Qiao, Sichuan University

Invited Speakers: (to be updated)

# Session VI: Towards the development of climate-smart and sustainable cities

**Description:** Focusing on the critical issues and recommendations on towards the development of climate-smart and sustainable cities:

- 1) Urban simulation and planning
- 2) Low-carbon urban development
- 3) Resilient urban systems

## Chair/Co-Chair:

- Alexander Baklanov, World Meteorological Organization
- Tao Wang, The Hong Kong Polytechnic University

#### Conveners

- Jiacan Yuan, Fudan University
- Likun Xue, Shandong University
- Yanli Zhang, Guangzhou Institute of Geochemistry, Chinese Academy of Sciences
- Xu Yue, Nanjing University of Information Science and Technology
- Yupeng Wang, Xi'an Jiaotong University

**Invited Speakers:** (to be updated)

## Session VII: Collaborative Pathways for Climate-Environment-Health Governance

**Description:** Round-table discussion and advocacy on the coordinated pathways for climate-environment-health governance

- 1) Understanding the inter-connectivity between climate change, atmospheric environment, and public health;
- 2) Identifying risks and vulnerabilities;
- 3) Analyzing the current governance structure;
- 4) Developing coordinated approaches and specific strategies for coordinated governance;
- 5) Considering equity and social justice; and address implementation challenges.

# Chair/Co-Chair:

- Tong Zhu, Peking University
- Ho Kim, Seoul National University

#### **Convenors:**

- Haidong Kan, Fudan University
- Wenjia Cai, Tsinghua University
- Lei Huang, Nanjing University
- Tao Xue, Peking University
- Guofeng Shen, Peking University

**Invited Speakers:** (to be updated)

## Session VIII: Coordinative pathways for climate-environment-carbon neutrality governance.

Description: Round-table discussion and advocacy on Coordinated pathways for Climate Change, Atmospheric Environment, and Carbon Neutrality.

- 1) Climate change impacts and the need for coordinated action
- 2) Mitigation strategies to reduce greenhouse gas emissions
- 3) Technology innovation and deployment to achieve carbon neutrality
- 4) Financing and investment
- 5) International cooperation and public participation
- 6) Public engagement and awareness for achieving carbon neutrality.

## Chair/Co-Chair:

- Kebin He, Tsinghua University
- Representative of the Asia-Pacific Regional Secretariat of the UNEP

#### **Convenors**:

- Weiqiang Chen, Institute of Urban Environment, Chinese Academy of Sciences
- Rong Wang, Fudan University
- Zhaowu Yu, Fudan University
- Zhongde Dai, Sichuan University
- Wendong Wei, Shanghai Jiao Tong University

Panelist Members: (to be updated)

## Session IX: Global partnerships and cooperation with stakeholders in the interdisciplinary area

Description: Round-table discussion and advocacy on Global partnership on risk inter-connectivity and governance on climate change, weather/climate extremes, atmospheric environment and public health, major issues include:

- 1) The need for understanding the impacts of climate change on public health, including the spread of diseases, mental health impacts, and food and water security;
- 2) The need for early warning systems and disaster risk reduction measures to mitigate the impacts of weather and climate-related hazards;
- 3) The role of businesses and the private sector in addressing climate change and reducing their carbon footprint;
- 4) The importance of investing in renewable energy and energy efficiency to reduce greenhouse gas emissions;
- 5) The need for international cooperation and partnerships to address these complex and interconnected issues.

## Chair/Co-Chair:

- Qunli Han: IRDR
- Xu Tang: EHAN/UNEP/UNOCHA
- UNEP representative

#### **Convenors**:

- Hongliang Zhang, Fudan University
- Jue Liu, Peking University
- Xiaoling Zhang, City University of Hong Kong
- Wei Wan, Asia Clean Air Center
- Kai Meng, Elsevier Press

Panelist Members: (to be updated)

#### **Session X: Poster Session**

#### Chair/Co-Chair:

- Yijun Zhang, Fudan University
- Liwu Zhang, Fudan University

#### **Conveners:**

- Xiaoyan Wang, MAP-AQ Asian Regional Office
- Huiling Ouyang, Fudan IRDR International Centre of Excellence
- Dan Li, Fudan University
- Lei Yao, Fudan University

Poster Size: 90 cm (width) × 120 cm (height). Please print by yourself and bring to the conference

#### 7. Abstract Submission

- (1) The abstract should meet to the scope of the sessions I-VI mentioned above.
- (2) Abstract Submission: Only online submission at the conference website (<a href="https://cwcc2023.irdrinternational.org">https://cwcc2023.irdrinternational.org</a>) is considered. The selection results will be updated on the website after August 15.
- (3) Deadline for abstract submission: August 10, 2023.
- (4) Unaccepted abstracts will not be notified.

Note: If you have any question in abstracts submission, please contact Dr. Xiaoyan Wang, wangxyfd@fudan.edu.cn

### 8. The CWCC Young Scientist Award

This award acknowledges the remarkable achievements made by young scientists who have made significant original innovations and breakthroughs within the field of climate change, atmospheric environment and public health.

**Eligibility:** All candidates must receive their Ph.D. degree within 10 years before the conference, that is, after 16 Oct, 2013 (not including 16 Oct, 2013). There are no restrictions on the age or nationality or gender.

**Nomination:** Nomination by members of Academic Committee (AC) is accepted only. Self-nomination will not be considered. Each member can nomination no more than 2 candidates. Nomination should be sent to

<u>fdu\_irdr\_icoe@fudan.edu.cn</u> by AC member before 30 August, 2023. A list of AC member can be found on the website of the Conference.

**Number of Award Winners:** Up to 3 individuals will be chosen as winners.

Evaluation procedure: Evaluation will be made by Academic Committee (AC).

**Supporting materials** (in English):

- (a) A detailed CV
- (b) A copy of certification of Ph.D. Degree
- (c) Up to 3 representative publications
- (d) Describe principal scientific findings in plain language (no more than 500 words)
- (e) Significance of your scientific finding to the society and its contribution to global governance (no more than 500 words)

# 9. Registration

Registration URL: https://cwcc2023.irdrinternational.org

Online registration deadline: October 15, 2023 (Please register before October 15. Registration will not be accepted on-site) On-site registration: October 16, 2023 9:00-15:00 (for payment and materials only)

	category	Discounted payment (Until 30 September)	Regular payment	On-site registration and payment
Experts, scholars,	standard	RMB 2,500 (USD 350)	RMB 3,000 (USD 430)	RMB 3,500 (USD 500)
people from all walks of life	Low-income countries with GDP per capita < \$8,000	RMB 1,800 (USD 250)	RMB 2,300 (USD 330)	RMB 2,800 (USD 400)
Student	standard	RMB 1,500 (USD 220)	RMB 2,000 (USD 290)	RMB 2,500 (USD 350)
	Low-income countries with GDP per capita < \$8,000	RMB 1,000 (USD 145)	RMB 1,200 (USD 170)	RMB 1,500 (USD 220)

# 10. Payment Information

(1) Registration and payment method:

## 1) For payment with Chinese RMB

The registration fee can be paid through bank transfer, QR code or on-site payment.

**Bank Transfer Information:** 

Account name: Fu Yue (Shanghai) Hotel Account number: 1001 8065 0900 0005 678

Bank name: The Industrial and Commercial Bank of China, Shanghai Guangfulin Road Sub-Branch

Bank Swift Code: ICBKCNBJSHI

The QR code:



# 2) For payment with other currency

The registration fee can be paid through Bank transfer or on-site payment.

**Bank Transfer Information:** Account name: Fudan University Account No.: 437759252978

Bank name: Bank of China Shanghai Fudan Sub - Branch Bank address: No.220.HanDanRoad, Shanghai, China, 200433

Bank Swift Code: BKCHCNBJ300

CNAPS:104290085263

- (2) Please include "CWCC2023 + Organization Name + Attendee's Name" in the notes when making online payments.
- (3) **Invoices will be provided by the hotel.** Please submit your invoicing information online in advance to facilitate the preparation.
- (4) Accommodation fee are not included in the registration fee. A certain number of rooms will be reserved at Shanghai Fuyue Hotel for the attendees. Please book in advance through conference website.

# 11. Conference Venue and Transportation Guide

Venue: Shanghai Fuyue Hotel. Alley 208, Rongyue Road, Songjiang District, Shanghai 201613, P.R. China

#### From the airport:

Shanghai Hongqiao International Airport →Fuyue Hotel (27km away, about RMB 70 by taxi, about 40 minutes)
Shanghai Pudong International Airport →Fuyue Hotel (68 kilometers, about RMB 200 by taxi, about 70 minutes)

# From the train station:

Shanghai Hongqiao Railway Station → Fuyue Hotel (27 kilometers, taxi about 65 yuan, about 35 minutes) Shanghai Railway Station → Fuyue Hotel (46 kilometers, taxi about 120 yuan, about 70 minutes)

# From the nearby subway station:

Metro Line 9, Songjiang University Town Station → Fuyue Hotel (2.2 kilometers, taxis or bus (No. 1803 or 69) and then walk 500-700 meters)

# 12. Contacts

Conference website: <a href="https://cwcc2023.irdrinternational.org">https://cwcc2023.irdrinternational.org</a>
General Contact: Hongliang Zhang, <a href="mailto:zhanghl@fudan.edu.cn">zhanghl@fudan.edu.cn</a>

Abstract Submission and Poster Inquiries: Xiaoyan Wang, wangxyfd@fudan.edu.cn Young Scientist Award Inquiries: Huiling Ouyang, ouyanghuiling@fudan.edu.cn Accommodation and Transportation Inquiries: +86-21-37688888, +86-21-67727979

Xiaoying Zhou, +86-13681717520

Registration Fee Inquiries: li Wang, <a href="mailto:fdwangli@fudan.edu.cn">fdwangli@fudan.edu.cn</a>; Shengmei Ding, <a href="mailto:dingshengmei@fudan.edu.cn">dingshengmei@fudan.edu.cn</a>;

**Sponsorship:** Xingnan Ye, <u>yxn0303@sina.com</u>