



# 第三届欧洲华人生态与环境青年学者论坛— 流域治理/碳中和专题

3<sup>rd</sup> Europe–China Eco–Environmental Forum for Young Scholars  
Special Topic on Watershed Management & Carbon Neutrality

## 会议指南

江西·南昌 2024年12月7日



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# 会议组织机构

## 主办单位 Organizer

欧洲华人生态环境协会

**European Chinese Association for Eco-Environment**

南昌大学资源与环境学院

**School of Resources & Environment, Nanchang University**

北京市生态修复学会

**The Society for Ecological Rehabilitation of Beijing**

## 协办单位 Co-Organizer

环境水质学国家重点实验室

**State Key Laboratory of Environmental Aquatic  
Chemistry**

城市水资源与水环境国家重点实验室

**State Key Laboratory of Urban Water Resource and  
Environment**

中国科学院大学欧洲校友会

**European Alumni Association of University of Chinese  
Academy of Sciences**

玛丽居里学者华人学会

**MCAA China Chapter**

# 南昌大学



南昌大学是国家“双一流”建设高校、教育部与江西省部省合建高校、江西省一流大学整体建设高校。

学校地处“英雄城”南昌市，拥有前湖、青山湖、东湖3个校区，其中前湖主校区占地面积4264.54亩。学校前身江西医学院、江西大学和江西工业大学分别溯源于1921年创建的江西公立医学专门学校、1940年创建的国立中正大学和1958年创建的江西工学院。1993年江西省委省政府决定将江西大学与江西工业大学合并组建南昌大学，1997年南昌大学被教育部列入国家“211工程”重点建设大学，2004年成为教育部与江西省人民政府共同建设大学，2005年南昌大学与原江西医学院合并组建新的南昌大学。2017年学校进入国家“双一流”世界一流学科建设高校行列。2018年学校成为教育部与江西省部省合建高校。

学校现有42个教学单位，13个学科门类、92个本科招生专业，

22个博士学位授权一级学科，3个博士专业学位授权类别，18个博士后科研流动站；49个硕士学位授权一级学科，35个硕士专业学位授权类别。学校设有5所直属附属医院，共有9个国家临床重点专科。材料科学与工程学科入选国家“双一流”建设学科，6个学科入选省一流学科。15个学科进入ESI全球排名前1%。

学校本部现有在编教职工4235人（其中专任教师2687人，高级职称1589人），有中国科学院院士3人、中国工程院院士2人，发展中国家科学院院士1人，国际食品科学院院士1人、国家杰出青年科学基金等国家级人才126人次。学校现有国家级、部省级理工医类科技平台共85个(不含附属医院)，其中包含1个全国重点室、1个国家工程技术研究中心、2个国家地方联合工程研究中心。

迈入新征程，展现新作为。站在新的起点，南昌大学坚持以立德树人为根本，推动思想再解放、目标再明确、能力再提升、作风再转变、力量再凝聚，积极落实“人才强校、特色创新、产教融合”三大战略，朝着创建具有“江西底色、中国特色”的世界一流大学宏伟目标奋勇前行。



# Nanchang University



Nanchang University is a "Double First-Class" initiative university in China, jointly established by the Ministry of Education and Jiangxi Province, as well as a top-tier university in Jiangxi Province. Located in Nanchang, the "Hero City," the university comprises three campuses: Qianhu, Qingshan Lake, and Donghu. The main campus, Qianhu, spans an area of 4,264.54 mu (approximately 284 hectares).

The university traces its origins back to three institutions: Jiangxi Public Medical School, founded in 1921; National Zhongzheng University, established in 1940; and Jiangxi Institute of Technology, founded in 1958. In 1993, the Jiangxi Provincial Party Committee and Provincial Government decided to merge Jiangxi University and Jiangxi Institute of Technology to form Nanchang University. In 1997, Nanchang University was included in the national "211 Project" for priority development. In 2004, it became a university jointly built by the Ministry of Education and the Jiangxi Provincial Government. In 2005, Nanchang University merged with the former Jiangxi Medical College to establish the new Nanchang University.

In 2017, the university was included in the national "Double First-Class" initiative for world-class discipline development. In 2018, it became a university jointly built by the Ministry of Education and Jiangxi Province.

Currently, Nanchang University has 42 academic units, covering 13 disciplinary categories and offering 92 undergraduate programs.

Nanchang University offers 22 first-level disciplines authorized to grant doctoral degrees, 3 doctoral professional degree programs, and 18 postdoctoral research stations. It also provides 49 first-level disciplines authorized to grant master's degrees and 35 master's professional degree programs. The university has five directly affiliated hospitals, with a total of nine nationally recognized clinical specialties.

The discipline of Materials Science and Engineering has been included in the national "Double First-Class" initiative, and six disciplines have been selected as provincial first-class disciplines. Additionally, 15 disciplines are ranked among the top 1% globally in the ESI.

The university currently employs 4,235 faculty and staff members, including 2,687 full-time teachers and 1,589 senior-ranked professionals. The faculty includes three academicians of the Chinese Academy of Sciences, two academicians of the Chinese Academy of Engineering, one academician of the World Academy of Sciences for the Advancement of Science in Developing Countries, one academician of the International Academy of Food Science and Technology, and 126 national-level talents recognized by programs such as the National Science Fund for Distinguished Young Scholars.

Nanchang University houses 85 national and provincial-level research platforms in science, engineering, and medicine (excluding affiliated hospitals). These include one national key laboratory, one national engineering technology research center, and two national-local joint engineering research centers.

Standing at a new historical starting point, Nanchang University remains committed to fostering moral integrity and cultivating talent as its core mission. The university strives for greater ideological liberation, clearer goals, enhanced capabilities, improved work ethics, and stronger cohesion. It actively implements three strategic initiatives: strengthening the university through talent, innovating with distinct characteristics, and integrating industry with education. With these efforts, Nanchang University is advancing boldly toward the ambitious goal of establishing a world-class university with a "Jiangxi identity and Chinese characteristics."

## 南昌大学资源与环境学院

资源与环境学院源于1958年江西工学院化学工程系；1999年化学工程系与环境工程系合并，成立环境与化学工程学院；2003年更名为环境科学与工程学院，下设化学工程与工艺、制药工程、过程装备与控制工程、测控技术与仪器以及环境工程5个专业；2008年更名为环境与化学工程学院，新增安全工程、环境科学等2个专业；2014年增设资源循环科学与工程专业，更名为资源环境与化工学院；2020年9月，给排水科学与工程专业调整至学院；2022年1月，化学工程系被调出，更名为资源与环境学院。

目前，学院开设有环境工程、过程装备与控制工程、给排水科学与工程3个本科专业，其中环境工程、过程装备与控制工程2个专业为国家一流本科建设专业；拥有环境科学与工程、动力工程与工程热物理2个一级学科硕士学位授权点、市政工程二级学科硕士学位授权点，以及环境科学与工程一级学科博士授权点，环境科学与工程博士后科研流动站。学院现有教职工122人，其中在职专任教师82人，教授20人，副教授37人；在校生1095人，其中全日制博士、硕士研究生407人，本科生688人。

学院高度重视科研与科技服务能力建设。建设有鄱阳湖环境与资源利用教育部重点实验室、流域碳中和教育部工程研究中心和江西生态文明研究院等多个省部级研究平台。设有水环境保护与污染控制、供排水安全保障及智慧技术研究等8个研究所，构建了良好的科研和科技服务平台体系。



# Introduction of the College of Resources and Environment

The College of Resources and Environment has its roots in the Chemical Engineering Department of Jiangxi Institute of Technology in 1958. In 1999, the Environmental Engineering Department merged with the Chemical Engineering Department to form the College of Environment and Chemical Engineering. In 2003, it was renamed as the College of Environmental Science and Engineering, offering majors in Chemical Engineering and Technology, Pharmaceutical Engineering, Process Equipment and Control Engineering, Measurement and Control Technology and Instruments, and Environmental Engineering. In 2008, it was renamed as the College of Environment and Chemical Engineering, adding majors in Safety Engineering and Environmental Science. In 2014, the major of Resource Recycling Science and Engineering was added, and it was renamed as the College of Resources, Environment, and Chemical Engineering. In September 2020, the major of Water Supply and Drainage Science and Engineering was transferred from the College of Civil Engineering to the College of Resources, Environment, and Chemical Engineering. In January 2022, in a new round of discipline and department adjustments, the Chemical Engineering Department was relocated, and it was renamed as the College of Resources and Environment.

The college focuses on carbon neutrality and peak carbon emissions in river basins, with environmental science and engineering as the main discipline and process equipment and control engineering, as well as resource recycling science and engineering, as supporting disciplines. It is dedicated to scientific research and talent development in green and low-carbon development and the construction of a beautiful China.

The college has established a comprehensive education system. It offers four undergraduate programs: Environmental Engineering, Process Equipment and Control Engineering, Resource Recycling Science and Engineering, and Water Supply and Drainage Science and Engineering.

It has two master's degree programs in Environmental Science and Engineering, Power Engineering and Engineering Thermophysics (in cooperation with the Intelligent Manufacturing College), and a second-level master's degree program in Municipal Engineering. It also has a doctoral program in Environmental Science and Engineering. The college has a postdoctoral research station in Environmental Science and Engineering. Currently, there are more than 1,100 students in the college, including over 300 full-time doctoral and master's students, and over 800 undergraduate students.

As an engineering college, the college attaches great importance to the construction of scientific research and technological service capabilities. With the college as the foundation, it has established key laboratories, such as the Key Laboratory of Poyang Lake Environmental and Resource Utilization of the Ministry of Education, the Key Laboratory of Poyang Lake Comprehensive Governance and Resource Development of Jiangxi Province, the Jiangxi Institute of Ecological Civilization, the Jiangxi Institute of River Basin Carbon Neutrality, the Poyang Lake Research Center of Nanchang University, and the Low-carbon and Biotechnology Research Center of Nanchang University. Additionally, the college has research institutes such as the Institute of Environmental Engineering, the Institute of Process Equipment and Control Engineering, the Center for Sustainable Development, and the Clean Production Audit Center, among others, forming a good platform for scientific research and technological services.

The college has a strong faculty with a reasonable age, educational background, professional title, and academic background structure, as well as rich teaching experience. The college currently has 109 faculty members, including 82 full-time teachers, including 21 professors and 29 associate professors. There are 25 doctoral supervisors and 79 master's supervisors. Among the full-time faculty, 56 have doctoral degrees and 18 have master's degrees. The college has more than 20 faculty members who are members of the Chinese Academy of Engineering, talents of the Provincial "Double Thousand Plan," leading figures in the academic and technical fields of key disciplines in the province, and outstanding young and middle-aged discipline leaders and backbone teachers in provincial universities.

## 会议日程

环境保护和生态文明建设已进入了新的发展时期，青年人才将在解决全球重大环境问题中发挥重要作用。欧洲华人生态环境协会旨在为欧洲生态与环境领域华人青年学者搭建交流学习的平台，营造多元开放、思想碰撞的学术氛围，激发理论探究和实证创新热情，加深对新发展格局、新时代背景下生态环境前沿问题的合作交流。2024年12月7日，协会联合南昌大学环境学院拟召开第三届“欧洲华人生态与环境青年学者论坛-流域治理&碳中和专题”，采用线上（腾讯会议）及线下结合的方式，线下会场位于南昌大学环境学院。邀请嘉宾来自欧洲、澳洲等国家的青年教师、洪堡学者、玛丽居里学者及博士后等青年学者。主要关注以下4个主题：**气候变化与绿色方案、绿色生态与碳中和、水处理与资源化、新污染物识别与治理。**

# Forum Introduction

We are entering a new phase in environmental protection and ecological civilization, where young researchers play a crucial role in addressing these global challenges. The European Chinese Association for Eco-Environment (ECAEE) aims to provide a platform for fostering communication and collaboration among young Chinese scholars studying and working in Europe, especially in Environmental Science. Our goal is to cultivate an open and diverse atmosphere that encourages the exchange of ideas, theoretical exploration, empirical innovation, and cooperation. Together, we aim to tackle ecological and environmental issues within the framework of the new development paradigm and era.

On 7th December, ECAEE will host the third "Europe-China Eco-Environmental Forum for Young Scholars". The Forum will be held both online (via Tencent Live) and in person at the Hairunailihua Hotel in Beijing. Our speakers include young scholars working in Europe and Middle East countries, including junior faculties, Humboldt scholars, Marie-Curie scholars, and postdoctoral researchers. The forum focuses on five following themes: **Water Treatment and Recovery; Climate Change and Low-carbon Solutions; Circular Economy and Sustainable Development; and Green Ecology and Environmental Health.**

# 交通指南 Transportation Guide

## 南昌大学资源与环境学院

地址：中国江西省南昌市红谷滩新区学府大道999号

## The College of Resources and Environment

Address: 999 Xuefu Avenue, Honggutan New District, Nanchang,  
Jiangxi Province, China.



南昌西站、南昌站、南昌昌北国际机场→南昌大学前湖校区资源与环境学院

You can reach the college of Resources and Environment at Nanchang University's Qianhu Campus from Nanchang West Railway Station, Nanchang Railway Station, or Nanchang Changbei International Airport.

# 会议日程安排 Conference Schedule

会议日程安排 Conference Schedule			
日期 (Date)	时间 (Time)	内容 (Activity)	地点 (Location)
12月6日	14:00-22:00	会议报到 (Conference Registration)	资源与环境学院三楼 306接待室 (Third Floor, Reception Room 306, School of Resources and Environment)
	18:00-20:00	晚餐 (Reception dinner)	前湖宾馆 (Qianhu Hotel)
12月7日	9:00-12:20	开幕式、大会报告 (Opening Ceremony and Keynote Speeches)	资源与环境学院三楼 彭锋报告厅 (Third Floor, Pengfeng Lecture Hall, School of Resources and Environment)
	12:20-15:00	午餐 (Lunch)	前湖宾馆 (Qianhu Hotel)
	15:00-18:00	大会报告 (Keynote Speeches)	资源与环境学院三楼 彭锋报告厅 (Third Floor, Pengfeng Lecture Hall, School of Resources and Environment)
	18:05-18:20	晚宴 (Dinner)	前湖宾馆 (Qianhu Hotel)
	18:20-22:00	大会报告 (Keynote Speeches)	资源与环境学院三楼 彭锋报告厅 (Third Floor, Pengfeng Lecture Hall, School of Resources and Environment)
12月8日		学院考察、离会 (Campus Visit and Departure)	

2024.12.07 论坛报告 (线上: 腾讯会议/线下: 南昌大学环境学院)  
7th December, 2024, Forum reports (Online by Tencent meeting/In person: Nanchang University)

(注: 以下时间为北京时间, -7小时为欧洲中部时间)

9:00-9:10	南昌大学资源与环境学院 石磊院长致辞			
9:10-9:20	欧洲华人生态环境协会 主席致辞			
时间 Time	报告人 Speaker	单位 Affiliations	报告题目 Report title	专题 Special subject
9:20-9:35	李国波 Guobo Li	南昌大学 Nanchang University	金属氧化物耦合分子筛脱硝催化剂构筑及反应机制 Construction and reaction mechanism of metal oxide coupled molecular sieve deNO <sub>x</sub> catalyst	主持人: 李昆 Host: Kun Li
9:35-9:50	马百文 Baiwen Ma	中国科学院生态环境研究中心 RCEES, CAS	短流程超滤净水工艺原理与应用 Principles and Applications of Short-process Ultrafiltration Drinking Water Treatment	
9:50-10:05	徐金英 Jinying Xu	南昌大学 Nanchang University	基于水热炭化技术的猪粪高效利用研究 Efficient Utilization of Pig Manure Based on Hydrothermal Carbonization Technology	
10:05-10:20	刘文宗 Wenzong Liu	哈尔滨工业大学(深圳) Harbin Institute of Technology (Shenzhen)	园区污水处理过程水固协同减污降碳 Water-solid synergy in reducing pollution and carbon emissions during the industrial park's sewage treatment process	
10:20-10:35	施文卿 Wenqing Shi	南京信息工程大学 Nanjing University of Information Science & Technology	人类活动对太湖流域河网碳排放的影响特征与机制 Impact of Human Activities on Carbon Emissions in the River Network of the Taihu Basin: Patterns and Mechanisms	
10:35-10:45	茶歇/线下合影 Tea Break / In Person Group Photo			
10:45-11:00	黄国集 Guoji Huang	南昌大学 Nanchang University	膜分离技术在碳中和领域的应用研究 Membrane separation for carbon capture	主持人: 魏林生 Host: Linsheng Wei
11:00-11:15	孙猛 Meng Sun	清华大学 Tsinghua University	膜-水微界面微纳结构调控及其强化净水机制 Regulation of Micro-Nano Structures at the Membrane-Water Interface and Its Mechanism for Enhanced Water Purification	

11:15-11:30	梁斌 Bin Liang	哈尔滨工业大学 (深圳) Harbin Institute of Technology (Shenzhen)	抗菌剂降解型耐药基因被忽视的正向环境作用 Neglected positive environmental role of degradative antimicrobial resistance genes	主持人: 魏林生 Host: Linsheng Wei
11:30-11:45	陈松灿 Songcan Chen	浙江大学 Zhejiang University	逆向丁烷厌氧氧化过程揭示多碳气态烷烃生物合成潜力 Back flux during anaerobic oxidation of butane support archaea-mediated alkanogenesis	
11:45-12:00	钱军 Jun Qian	南昌大学 Nanchang University	基于微藻生物膜系统的废水处理技术及其机制研究 Studies on technique and mechanism of microalgal biofilm-based wastewater treatment	
12:00-15:00	午餐/休息 Launch / Break			
15:00-15:10	人才引进 – 南昌大学资源与环境学院介绍 Talents – Introduction of Nanchang University			
15:10-15:20	会议致辞 - 中国科学院生态环境研究中心 魏源送研究员 Forum Speech – RCEES, CAS, Prof. Yuansong Wei			
15:20-15:35	高云虎 Yunhu Gao	英国剑桥大学 Cambridge University	化学产品碳足迹和减排路径的研究 Carbon footprint and decarbonization pathways of chemical products	气候变化与绿色方案 Climate change and low-carbon solution  主持人: 马百文 Host: Baiwen Ma
15:35-15:50	张利权 Liquan Zhang	伦敦大学学院 University College London	纳米针阵列提升氧化钌碱性析氢性能及其反应机理研究 Enhancing Alkaline Hydrogen Evolution Performance of Ruthenium Oxide through Nano-Needle Arrays	
15:50-16:05	胡享平 Xiangping Hu	挪威科技大学 Norwegian University of Science and Technology	用简单的统计方法解析区域气候对土地覆盖变化的响应 Unmixing the regional climate response to land cover changes with a simple statistical approach	
16:05-16:20	郑赫然 Heran Zheng	英国伦敦大学学院 University College London	气候变化下虚拟用水不平等和不对称稀缺影响加剧 Intensifying virtual water-use inequalities and asymmetrical scarcity impacts under climate change	
16:20-16:35	陈佩佩 Peipei Chen	剑桥大学 University of Cambridge	全球发电部门的能源转型和政策评估 Global energy transition and policy assessment for power generation	



16:35-16:50		茶歇/线上合影 Tea Break/Online Group Photo		
16:50-17:05	马鑫 Maxime Van Haeverbeke	比利时根特大学 Ghent University	阻抗谱建模中的选定主题 Selected topics in Impedance Spectroscopy Modelling	绿色生态与碳中和 Green ecology and environmental health  主持人: 杨敏 Host: Min Yang
17:05-17:20	罗珊 Shan Luo	英国利物浦大学 The University of Liverpool	树木与菌根相互作用调节森林生产力 Tree-mycorrhiza interactions modify forest productivity	
17:20-17:35	田开兰 Kailan Tian	剑桥大学 University of Cambridge	全球产业布局重构与碳减排压力 Global Industrial Restructuring and Carbon Reduction Pressure	
17:35-17:50	刘晓夏 Xiaoxia Liu	欧洲卓越可持续水科技中心 Wetsus	弱磁场影响下的微生物碳酸钙成矿作用: 从自来水到海洋 Microbial calcium carbonate mineralization under the influence of weak magnetic fields: from tap water to the ocean	
17:50-18:05	单宝英 Baoying Shan	米兰理工大学 Politecnico di Milano	复合极端事件的定义、识别与影响 Compound extreme climate events: definition, identification and impacts	
18:05-18:20		晚餐/休息 Lunch/Rest		
18:20-18:30		欧洲华人生态环境协会介绍 - 杨敏 秘书长 Introduction to ECAEE – Min Yang, Secretary General		
18:30-18:40		专刊介绍 – 哈尔滨工业大学 丁安 副教授 Introduction of Special Issues – Associate Prof. An Ding, HIT		
18:40-18:55	吴有豪 Huu Hao Ngo	澳大利亚悉尼科技大学 University of Technology Sydney	藻类在循环经济中的探索 Exploration of algae in circular economy	水处理与资源化 Water Treatment and Resource Utilization
18:55-19:10	西奥·赫曼斯 Theo Huisman	卡塔尔哈马德·本·哈利法大学 HBKU Qatar	水和废水处理膜过滤系统中生物污染物的检测和缓解 Detection and mitigation of biofouling in membrane filtration systems for water and wastewater treatment	
19:10-19:25	李昭 Zhao Li	德国亚琛工业大学 RWTH Aachen University	微藻生物大分子的微滤膜过滤: 脉冲电场处理和高压均质化处理对单细胞蛋白质回收和膜堵塞的影响 Microalgae Biomolecules: Impact of Pulsed Electric Fields and High Pressure Homogenization on Single-Cell Protein Recovery and Membrane Fouling	

19:25-19:40	李盛洁 Shengjie Li	德国马普海洋微生物所 Max Planck Institute for Terrestrial Microbiology	微氧区单颗粒物及附着微生物氮损失 N-loss of individual particles and associated microorganisms in oxygen minimum zones	主持人：丁安 Host: An Ding
19:40-19:55	师城 Cheng Shi	瑞士联邦水科学与技术研究所 Swiss Eawag	基于非靶向分析和机器学习的流域溯源研究：辨别未知污染来源的化学信号 Contamination source tracking based on non-target analysis and machine learning: chemical forensics on unknown sources	
19:55-20:10	茶歇 Tea break			
20:10-20:25	阮楚晋 Chujin Luan	瑞士联邦水科学与技术研究所 Swiss Eawag	噬菌体捕食通过重塑空间结构促进质粒转移 Phage predation facilitates plasmid transfer by reshaping spatial organization	新污染物识别与治理 Detection and Control of New Pollutants  主持人：张俊亚 Host: Junya Zhang
20:25-20:40	于耀淳 Yaochun Yu	瑞士联邦水科学与技术研究所 Swiss Eawag	微生物降解全氟化合物：解析功能基因与脱氟酶 Biodefluorination of PFAS: A Dive into Functional Genes and Enzymes	
20:40-20:55	熊毕景 Bijing Xiong	瑞士联邦理工学院 ETH	微生物对周期性抗生素治疗在单细胞水平上的响应 Monitoring bacterial responses to dynamic antibiotic treatment at single-cell level	
20:55-21:10	刘阳 Yang Liu	剑桥大学 University of Cambridge	CRISPR/Cas传感器 CRISPR/Cas-enabled sensors	
21:10-21:25	杨竹根 Zhugen Yang	英国克兰菲尔德大学 Cranfield University	用于水和健康的低成本快速传感器 Low-cost and rapid sensors for water and health	
21:25-21:55	自由讨论，会议总结 Free Discussion			

## 大会致辞嘉宾简介



### 魏源送 中国科学院生态环境研究中心

魏源送，博士，二级研究员，现任中国科学院生态环境研究中心水污染控制实验室主任、环境科技海外中心副主任，第九、十届学术委员会和学位委员会委员，十四届全国政协委员，人口资源环境委员会委员，北京市科协常委，北京生态修复学会理事长，生态环境部长江生态环境保护修复南昌驻点跟踪研究工作组组长。农工党北京市委委员，农工党北京市委生态环境与人口资源工作委员会主任。研究方向为区域流域水污染控制，主持国家水专项、国家自然科学基金等60余项。发表SCI论文260余篇，授权发明专利30余项，出版专著5部，入选2022-2024全球前2%顶尖科学家榜单，荣获国家科技进步奖二等奖、环境保护科学技术奖二等奖等6项。

Dr. Yuan Song Wei is a Distinguished Research Fellow and the Director of the Water Pollution Control Laboratory at the Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences. He is also the Deputy Director of the Overseas Center for Environmental Technology and serves as a member of the 9th and 10th Academic and Degree Committees. Additionally, he is a member of the 14th National Committee of the Chinese People's Political Consultative Conference (CPPCC) and its Population, Resources, and Environment Committee. Dr. Wei is the President of The Society for Ecological Rehabilitation of Beijing and leads the Yangtze River Ecological Environment Protection and Restoration Team under the Ministry of Ecology and Environment. He also holds leadership roles in the Beijing Association for Science and Technology and the Chinese Peasants and Workers Democratic Party. His research focuses on water pollution control in regional and watershed environments. Having led over 60 major projects, including national programs and those funded by the National Natural Science Foundation, Dr. Wei has published over 260 SCI papers, holds 30+ patents, and authored five books. He was ranked among the top 2% of scientists globally from 2022 to 2024 and has received numerous accolades, including the Second Prize of the National Science and Technology Progress Award.

## 大会致辞嘉宾简介



### 马百文 中国科学院生态环境研究中心

马百文，中国科学院生态环境研究中心研究员，国家优秀青年科学基金获得者，德国洪堡学者，韩国国家研究基金会受邀科学家，中国科学院青年创新促进会优秀会员。主要研究方向为水处理原理与技术特别是膜法水处理，主持/参与国家自然科学基金、重点研发计划项目等10余项。以第一/通讯作者在Environmental Science & Technology、Water Research等期刊发表SCI论文40余篇，获授权专利20余项。获北京市科学技术进步一等奖、环保部环境保护科学技术一等奖等；兼任欧洲华人生态环境协会（ECAEE）主席、国际水协-中国青年委员会（IWA-YWP）常务委员、Water Science & Technology期刊编委、Fundamental Research期刊青年编委等。

Dr. Baiwen Ma is a Research Professor at the Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences. He is a recipient of the National Excellent Young Scientists Fund, a Humboldt Scholar in Germany, and an invited scientist by the National Research Foundation of Korea. His research focuses on membrane-based water treatment technologies. He has led or participated in over 10 projects, published over 40 SCI papers, and holds more than 20 patents. Dr. Ma has received the First Prize of the Beijing Science and Technology Progress Award and the First Prize of the Ministry of Environmental Protection Science and Technology Award. He is the President of the European Chinese Association for Eco-Environment (ECAEE) and serves as an Executive Committee Member of the International Water Association - Young Water Professionals (IWA-YWP) China. Dr. Ma is also an editorial board member for Water Science & Technology and Fundamental Research.

## 大会主持人简介



**杨敏** 哈尔滨工业大学(深圳)

杨敏，工学博士，哈尔滨工业大学(深圳)生态环境学院副研究员，欧盟玛丽居里学者，比利时根特大学数学分析与模型系博士后。长期致力于人工智能与计算流体力学基础研究与应用，近年来关注化工环保过程的融合计算与能效优化、生物化工装备再制造方向。兼任国际水协会计算流体力学委员会主席，欧洲华人生态环境协会副主席兼秘书长。主持欧盟H2020基金、欧美日韩水工业先进技术开发与应用项目二十余项。积极开展智慧水务系统研发和科技成果转化活动，开发水务能效计算和优化的基础模型和软硬件设施等。发表学术论文30余篇，获授权发明专利4项，申请软件著作权3项。

Dr. Min Yang, PhD in Engineering, is an Associate Research Professor at School of Ecology and Environment, Harbin Institute of Technology (Shenzhen), EU Marie Curie Fellow, and Postdoctoral Researcher at the Department of Mathematical Analysis and Modeling at Ghent University. His research focuses on artificial intelligence and computational fluid dynamics, particularly in optimizing energy efficiency in chemical and environmental protection processes and in intelligent manufacturing for bioprocess engineering. He is the Chair of the Computational Fluid Dynamics Committee of the International Water Association and the Vice President and Secretary-General of the European Chinese Association for Eco-Environment (ECAEE). Dr. Yang has led over 20 EU H2020-funded projects and international water industry technology initiatives. He is also involved in the research and commercialization of smart water systems, developing models and software/hardware tools for water efficiency optimization. He has published 30+ academic papers, holds 4 patents, and applied for 3 software copyrights.

## 大会主持人简介



**丁安** 哈尔滨工业大学

丁安，哈尔滨工业大学市政工程系，副教授/博士生导师。入选哈尔滨工业大学青年拔尖人才选聘计划，黑龙江省自然科学基金优秀青年基金，瑞士联邦政府卓越奖学金等计划。兼任欧洲华人生态环境协会（ECAEE）副主席，国际水协中国青年委员会（IWA-YWP）委员，国际生物过程协会（IBA）终身委员等。主持国家自然科学基金/省自然科学基金等10项，发表SCI论文90篇，H因子38。研究方向是膜法水处理技术与原理。

Dr. Ding An is an Associate Professor and PhD Supervisor in the Department of Municipal Engineering at Harbin Institute of Technology. He has been selected for several prestigious programs, including the Harbin Institute of Technology Youth Top Talent Program, the Excellent Young Fund of the Heilongjiang Provincial Natural Science Foundation, and the Swiss Government Excellence Scholarship. He also holds key positions, including Vice President of the European Chinese Association for Eco-Environment (ECAEE), Committee Member of the International Water Association's China Young Professionals Committee (IWA-YWP), and Lifetime Member of the International Bioprocess Association (IBA). Dr. Ding has led over 10 projects funded by the National Natural Science Foundation and Provincial Science Foundations, and he has published 90 SCI papers, with an H-index of 38. His research focuses on membrane-based water treatment technologies and principles.

## 大会主持人简介



**张俊亚** 中国科学院生态环境研究中心

张俊亚，博士，德国“洪堡学者”，中国科学院生态环境研究中心 副研究员，中国科学院大学 硕士生导师，连续入选美国斯坦福大学发布的2022-2023年度“全球前2%顶尖科学家榜单”，研究方向为有机固废资源化利用、流域水生态环境修复。中国科学院优秀“院长奖”获得者，国家自然科学基金委（NSFC），捷克科学基金会（GACR），北京市自然科学基金委评审专家。已在ES&T, Water Res. JHM等高水平期刊发表论文130余篇，第一/通讯作者学术论文40余篇，Google学术H指数为40，主持国家自然科学基金青年及面上项目与国家水污染控制国家重大专项子课题等10余项国家和省部级项目。

Dr. Junya Zhang is a Humboldt Scholar, Associate Researcher at the Institute of Eco-environmental Research, Chinese Academy of Sciences (CAS), and Master's Supervisor at the University of Chinese Academy of Sciences. He was listed on the 2022-2023 "World's Top 2% Scientists" list published by Stanford University. His research focuses on the resource utilization of organic solid waste and watershed ecological environment restoration. Zhang is also a recipient of the CAS Excellent "President's Award" and serves as a peer reviewer for the National Natural Science Foundation of China (NSFC), Czech Science Foundation (GACR), and Beijing Natural Science Foundation. He has published over 130 papers in high-impact journals such as ES&T, Water Research, and JHM, with more than 40 academic papers as the first or corresponding author. His Google Scholar H-index is 40. Zhang has led more than 10 national and provincial projects, including National Natural Science Foundation's Youth and General Programs, as well as major sub-projects of the National Water Pollution Control Program.

## 大会主持人简介



**魏林生** 南昌大学资源与环境学院

魏林生，博士，教授，博导。南昌大学资源与环境学院副院长。主要研究方向为高效臭氧发生及其应用、绿色高效过程（环保）装备、低温等离子体。中国环保机械行业协会臭氧专业委员会主任，《Ozone: Science & Engineering》编委，《南昌大学学报（工科版）》编委。意大利博洛尼亚大学客座教授、捷克科学院客座研究员。主持国家自然科学基金6项、省部级和地厅级科研项目14项、企业横向项目30余项。发表论文60余篇，其中SCI/EI收录50余篇；获授权专利11项。先后荣获江西省青年科学家、赣江青年学者、赣江特聘教授、江西省杰出青年科学基金获得者、江西省主要学科学术和技术带头人-领军人才等称号。

Dr. Linsheng Wei is a Professor, and Doctoral Supervisor, and serves as the Deputy Dean of the School of Resources and Environmental Sciences at Nanchang University. His primary research areas include efficient ozone generation and its applications, green and efficient process (environmental protection) equipment, and low-temperature plasma. He is the Chair of the Ozone Professional Committee of the China Environmental Protection Machinery Industry Association, an editorial board member of "Ozone: Science & Engineering," and an editorial board member of the "Journal of Nanchang University (Engineering Edition)." Visiting Professor at the University of Bologna, Italy, and Visiting Researcher at the Czech Academy of Sciences. He has led six projects funded by the National Natural Science Foundation, 14 provincial and ministerial-level research projects, and over 30 enterprise collaborative projects. He has published over 60 papers, with more than 50 indexed by SCI/EI, and holds 11 authorized patents. He has successively won titles such as Young Scientist of Jiangxi Province, Young Scholar of Ganjiang, Distinguished Professor of Ganjiang, Recipient of Outstanding Youth Science Fund of Jiangxi Province, and Leading Talent of Major Disciplines in Jiangxi Province.



## 大会主持人简介



### 李昆 南昌大学资源与环境学院

李昆，博士，副教授，毕业于中国科学院生态环境研究中心。现为南昌大学资源与环境学院副院长。主要从事污水深度处理与资源回收相关研究。主持完成国家级、省级和横向课题10余项，在国内外知名学术刊物上发表学术论文40余篇（其中SCI论文27篇，一作/通讯论文24篇，高被引论文1篇，单篇他引500余次，总引用次数2800余次，h指数18），国内国际学术会议论文12篇，指导学生获国家级、省级奖项5项，申请国家专利5项（授权3项）。国内外多家期刊审稿人，国家基金项目评审专家、江西省科技厅项目评审专家、江西省水生态环境专家库成员。

Dr. Kun Li is an Associate Professor, and was graduated from the Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences. He is currently the Deputy Dean of the School of Resources and Environmental Sciences at Nanchang University. His primary research focuses on advanced wastewater treatment and resource recovery. Dr. Li has led and completed over 10 national, provincial, and industry-funded projects. He has published more than 40 academic papers in renowned domestic and international journals, including 27 SCI-indexed papers, with 24 as the first or corresponding author, one highly cited paper, and a single paper cited over 500 times, accumulating over 2800 citations in total, with an h-index of 18. He has also presented 12 papers at national and international academic conferences. Under his guidance, students have won 5 national and provincial awards. He has applied for 5 national patents, with 3 granted. Dr. Li serves as a reviewer for several domestic and international journals, a review expert for national fund projects, a project review expert for the Jiangxi Provincial Department of Science and Technology, and a member of the Jiangxi Provincial Water Eco-Environment Expert Database.

## 大会报告人简介



### Huu Hao Ngo 澳大利亚悉尼科技大学

Huu Hao Ngo 现任悉尼科技大学土木与环境工程学院环境工程系特聘教授、水与废水处理技术中心副主任、环境绿色生物工艺联合研究中心联合主任。他的主要研究方向包括生物废物/废水处理工艺、生物能源、资源回收与利用、膜工艺、环境影响评估等。目前担任 *Bioresource Technology*、*Chemical Engineering Journal* 杂志主编，*Science of the Total Environment*、*Journal of Water Process Engineering* 等杂志副主编，以及众多国际知名期刊的编委会成员/客座编辑。

Huu Hao Ngo is a Distinguished Professor in the School of Civil and Environmental Engineering at the University of Technology Sydney (UTS). He serves as the Deputy Director of the Centre for Technology in Water and Wastewater and Co-Director of the Joint Research Centre for Environmental Green Biotechnology. His primary research areas include biowaste/wastewater treatment processes, bioenergy, resource recovery and reuse, membrane technology, and environmental impact assessment. He is currently the Editor-in-Chief of *Bioresource Technology* and *Chemical Engineering Journal*, Associate Editor of *Science of the Total Environment* and *Journal of Water Process Engineering*, and serves as an editorial board member or guest editor for numerous internationally renowned journals.

# 大会报告人简介



**孙猛** 清华大学

孙猛，清华大学水质与水生态研究中心副研究员，教育部青年长江学者，兼任IWA中国青年委会委员，中国环境科学学会青年科学家分委会委员，工程院院刊Engineering青年编委、学科秘书，RCR Advances编委等。研究领域膜法水污染控制与资源回用技术与理论，特别在新一代智能化膜法水质净化与污水资源化领域开展了创新性研究，迄今以第一/通讯作者在Nature子刊Nat. Commun.、ACS Nano、AEM、ADFM、ES&T (10) 和Water Research等刊物发表SCI论文50余篇，参编英文专著2部，授权发明专利7项。

Meng Sun is an Associate Research Fellow at the Center for Water Quality and Ecology Research, Tsinghua University, and a Young Changjiang Scholar awarded by the Ministry of Education. He serves as a member of the IWA Young Water Professionals China Committee, the Youth Scientists Subcommittee of the Chinese Society for Environmental Sciences, and as a youth editor and discipline secretary for Engineering. He is also on the editorial board of RCR Advances. His research focuses on membrane-based technologies for water pollution control and resource reuse, with particular emphasis on innovative studies in next-generation smart membrane-based water purification and wastewater resource recovery. To date, he has published over 50 SCI papers as the first or corresponding author in journals such as Nature Communications, ACS Nano, AEM, ADFM, ES&T (10 papers), and Water Research. He has co-authored two English monographs and holds seven authorized invention patents.

## 大会报告人简介



**刘文宗** 哈尔滨工业大学

刘文宗，哈尔滨工业大学（深圳）生态环境学院教授。中国沼气学会青年专家委员会暨中国厌氧生物技术青年专家委员会主任，国家级青年人才，广东省杰出青年基金获得者，“孔雀团队”骨干人才。主要从事污水处理碳减排与资源化的研究工作，开展污水碳源挖掘与利用、二氧化碳减排与增值转化、生物炭转化与利用等研究。

Wenzong Liu is a Professor at the School of Ecology and Environment, Harbin Institute of Technology (Shenzhen). He serves as the Chair of the Youth Expert Committee of the China Biogas Association and the Youth Expert Committee on Anaerobic Biotechnology. He is a National Youth Talent, recipient of the Guangdong Outstanding Youth Fund, and a key member of the "Peacock Team" initiative. His research focuses on carbon reduction and resource recovery in wastewater treatment, including the exploration and utilization of carbon sources in wastewater, CO<sub>2</sub> reduction and valorization, and biochar transformation and application.

# 大会报告人简介



**梁斌** 哈尔滨工业大学

梁斌，哈尔滨工业大学深圳校区生态环境学院，教授、博导。国家优秀青年科学基金、广东省杰出青年科学基金获得者；入选中科院青年创新促进会。主要从事水环境风险识别与阻控研究，在工程与自然水环境中新污染物微生物降解转化原理、生物与生态效应、大数据驱动风险识别方法与绿色阻控技术方面开展了系统工作。主持或作为核心骨干参加国家级课题十余项，其中主持国家自然科学基金项目4项，以(共同)第一/通讯作者在Environ. Sci. Technol.、Water Res.等环境领域权威期刊发表SCI论文52篇，ESI高被引论文4篇，(共同)主编英文著作2部，申请与授权发明专利10余件，参与编制团体标准2项，总引用6570余次，H因子49；担任SCI期刊Current Research in Biotechnology执行编辑；研究成果获2020年国家技术发明二等奖、2017年环境保护科学技术一等奖、2021年产学研合作创新成果一等奖、2015年微生物生态青年科技创新奖一等奖等。

Bin Liang is a Professor and doctoral supervisor at the School of Ecology and Environment, Harbin Institute of Technology (Shenzhen). He is a recipient of the National Science Fund for Excellent Young Scholars and the Guangdong Outstanding Youth Science Fund, and a member of the Youth Innovation Promotion Association of the Chinese Academy of Sciences. His research focuses on water environment risk identification and control, with systematic work on microbial degradation and transformation of emerging contaminants, biological and ecological effects, data-driven risk identification methods, and green control technologies in both engineered and natural water environments. He has led or contributed as a key member to over ten national-level projects, including serving as principal investigator for four National Natural Science Foundation projects. He has published 52 SCI papers in leading environmental journals such as Environmental Science & Technology and Water Research, including four ESI Highly Cited Papers. He has co-edited two English books, holds over ten authorized invention patents, and has contributed to the development of two group standards. His work has been cited over 6,570 times, with an H-index of 49. He serves as Executive Editor for the SCI journal Current Research in Biotechnology. His research achievements have received multiple awards, including the 2020 National Technological Invention Award (Second Prize), 2017 Environmental Protection Science and Technology Award (First Prize), 2021 Industry-University-Research Collaborative Innovation Achievement Award (First Prize), and the 2015 Young Scientist Innovation Award in Microbial Ecology (First Prize).

# 大会报告人简介



## 陈松灿 浙江大学

陈松灿，博导，浙江大学“百人计划”研究员，入选国家级青年人才计划。2024年加入浙大环境与资源学院。本科毕业于浙江大学，博士毕业于中国科学院生态环境研究中心。2019年-2024年，曾在德国亥姆霍兹环境研究中心和奥地利维也纳大学开展博士后工作，与朱永官院士团队、Alexander Loy教授和Florin Musat保持长期密切合作，致力于元素生物地球化学循环和微生物生态领域的前沿研究。近年来以第一作者在Nature, Proceedings of the National Academy of Sciences (PNAS), Nature Communications, The ISME Journal, Environmental Microbiology等国际顶级期刊发表研究性论文12篇，合作发表论文18篇。曾获得中国科学院优秀博士学位论文奖和中国科学院院长特别奖，并获玛丽·居里博士后奖学金的资助。

Songcan Chen is a doctoral supervisor and a researcher under Zhejiang University's "Hundred Talents Program." He was selected for the National Youth Talent Program and joined the College of Environment and Resources at Zhejiang University in 2024. He earned his bachelor's degree from Zhejiang University and his doctorate from the Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences. From 2019 to 2024, he conducted postdoctoral research at the Helmholtz Centre for Environmental Research in Germany and the University of Vienna in Austria. He maintained long-term and close collaborations with Academician Yongguan Zhu, Professor Alexander Loy, and Professor Florin Musat, focusing on cutting-edge research in elemental biogeochemical cycling and microbial ecology.

In recent years, he has published 12 first-author research papers in top international journals, including Nature, Proceedings of the National Academy of Sciences (PNAS), Nature Communications, The ISME Journal, and Environmental Microbiology. Additionally, he has co-authored 18 other papers. He has received awards such as the Outstanding Doctoral Dissertation Award of the Chinese Academy of Sciences and the CAS President's Special Award and has been supported by the Marie Curie Postdoctoral Fellowship.

## 大会报告人简介



### 施文卿 南京信息工程大学

施文卿，南京信息工程大学环境科学与工程学院教授、博导，国家高层次青年人才，主要从事河流-河口-近海连续体生物地球化学循环研究。发表学术论文60余篇，包括一作/通讯Nature Communications、National Science Review、Geophysical Research Letters等27篇；授权国际发明专利2项、国内发明专利7项；获得省部级一等奖3项；入选江苏省双创团队（2017年）、江苏省科协青年科技人才托举工程（2018年）和江苏省“333高层次人才培养工程”（第六期）；主持国家自然科学基金优秀青年基金项目、江苏省自然科学基金优秀青年基金项目等国家级或省部级课题近20项。

Shih Wenqing is a professor and doctoral supervisor at the School of Environmental Science and Engineering, Nanjing University of Information Science and Technology. He is a national high-level young talent, primarily engaged in research on the biogeochemical cycles of river-estuary-coastal continuum. He has published over 60 academic papers, including 27 as the first author or corresponding author in journals such as Nature Communications, National Science Review, and Geophysical Research Letters. He holds 2 international invention patents and 7 domestic invention patents. He has received three provincial and ministerial first prizes and has been selected for the Jiangsu Province Double Innovation Team (2017), the Jiangsu Province Science and Technology Association Young Talent Support Program (2018), and the Jiangsu Province "333 High-Level Talent Cultivation Project" (Phase VI). He has led nearly 20 national or provincial-level projects, including the Excellent Young Fund Project of the National Natural Science Foundation and the Excellent Young Fund Project of the Jiangsu Province Natural Science Foundation.

# 大会报告人简介

## 杨竹根 英国克兰菲尔德大学



杨竹根，法国里昂大学博士，现为英国克兰菲尔德大学教授、博导，先进传感器中心主任。2018 年获得英国“优秀青年基金”（成功率通常低于 1%），创建传感技术与环境健康实验室，开始独立科研工作并担任课题组长，并于 2023 年获得英国 Leverhulme 研究领袖人才计划。主要研究领域涉及先进传感技术、纸微流控、现场快速传感器在环境科学（饮用水微生物污染，污水分析）、公共健康（如毒品快速监测）和生物医学（癌症、传染病快速诊断）领域的应用。先后主持和参与英国自然基金委、英国皇家工程院基金，苏格兰基金委，欧盟居里夫人博士后基金(Marie Curie Fellow)等 20 余个项目，在 Nat. Water、PNAS、Nat. Commun.、ES&T 等发表论文 80 多篇。

Zhugen Yang holds a PhD from the University of Lyon, France, and is currently a Professor and doctoral supervisor at Cranfield University, UK, where he serves as the Director of the Advanced Sensors Laboratory. In 2018, he received the prestigious UK Research and Innovation Future Leaders Fellowship (with a success rate typically below 1%), establishing the Laboratory for Sensor Technology and Environmental Health and initiating independent research as a group leader. In 2023, he was awarded the Leverhulme Research Leadership Award. His primary research focuses on advanced sensing technologies, including paper-based microfluidics and rapid on-site sensor applications in environmental science (e.g., microbial contamination in drinking water, wastewater analysis), public health (e.g., rapid drug detection), and biomedicine (e.g., rapid diagnostics for cancer and infectious diseases). He has led or participated in over 20 projects funded by organizations such as the UK Natural Environment Research Council (NERC), the Royal Academy of Engineering, the Scottish Funding Council, and the EU Marie Curie Fellowship program. He has published more than 80 papers in prestigious journals, including Nature Water, PNAS, Nature Communications, and Environmental Science & Technology (ES&T).



## 大会报告人简介



### 胡享平 挪威科技大学

胡享平，博士毕业于挪威科技大学数学科学学院，现为挪威科技大学产业生态中心科研型教授(长聘)。他的主要研究包括进行数学建模和统计分析，特别是使用恰当的数学和统计方法处理环境和生态数据集。他担任《Discover Applied Sciences》和《Global Environmental Change Advances》等期刊的副主编或编委会成员。他在《Nature Communications》、《Frontiers in Ecology and the Environment》、《Global Environmental Change》、《Earth's Future》和《Communications Earth & Environment》等国际知名期刊上发表了80多篇论文。他目前正在领导和参与若干挪威或欧洲研究项目的研究工作。

Dr. Xiangping Hu earned his PhD from the Faculty of Mathematical Sciences at the Norwegian University of Science and Technology (NTNU) and is currently a tenured Research Professor at NTNU's Industrial Ecology Program. His primary research focuses on mathematical modeling and statistical analysis, particularly the application of advanced mathematical and statistical methods to environmental and ecological datasets. Dr. Hu serves as an Associate Editor or editorial board member for journals such as Discover Applied Sciences and Global Environmental Change Advances. He has published over 80 papers in prestigious international journals, including Nature Communications, Frontiers in Ecology and the Environment, Global Environmental Change, Earth's Future, and Communications Earth & Environment. He is actively leading and participating in several research projects in Norway and across Europe.

## 大会报告人简介



**郑赫然** 英国伦敦大学学院

郑赫然，国际发展学博士，伦敦大学学院巴特莱特建筑系可持续建设学院助理教授。研究方向为投入产出模拟分析、可持续生产与消费，致力于量化公共政策通过产业链传导的社会环境外溢影响，相关研究成果以第一或通讯作者发表在Nature Climate Change、Nature Sustainability、Nature Communications等期刊。

Heran Zheng holds a PhD in International Development and is an Assistant Professor at the Bartlett School of Sustainable Construction, University College London (UCL). His research focuses on input-output modeling, sustainable production and consumption, and quantifying the social and environmental spillover effects of public policies through industrial supply chains. His findings have been published as first or corresponding author in prestigious journals such as Nature Climate Change, Nature Sustainability, and Nature Communications.

## 大会报告人简介



### 刘晓夏 欧洲卓越可持续水科技中心Wetsus

刘晓夏，欧洲卓越可持续水科技中心Wetsus与维也纳农大联合培养博士，欧盟玛丽居里奖学金获得者，并获最高荣誉博士学位。主要研究弱磁场对微生物的影响以及将应用磁场调控寡营养水体中的微生物生态。曾参加欧盟伊拉莫斯计划于联合国教科文组织水教育学院（代尔夫特），根特大学（比利时），布拉格理工（捷克）三校取得荣誉硕士学位。也曾于上海交通大学，中科院微生物所交流访问。他目前在Wetsus担任科研项目经理，曾获欧盟EXCITE项目支持，目前与维也纳农大，瓦赫宁根大学等合作指导管理四个博士项目，涉及饮用水安全，流式细胞仪，微生物抗药性，磁化水，及水质对肠道菌群影响等领域，她同时还积极促进中荷合作，并将水科技的研究与应用拓展到社科领域。发起了Wetsus唯一一个社科主题并担任主题协调员，以及Wetsus的中国联络官。

Xiaoxia Liu earned her PhD through a joint program between Wetsus, the European Centre of Excellence for Sustainable Water Technology, and the University of Natural Resources and Life Sciences (BOKU) in Vienna. She is a recipient of the prestigious Marie Curie Fellowship and graduated with the highest honors. Her primary research focuses on the effects of weak magnetic fields on microorganisms and the application of magnetic fields to regulate microbial ecology in oligotrophic water systems. She participated in the EU Erasmus Mundus program, earning an honors master's degree from UNESCO-IHE Institute for Water Education (Delft), Ghent University (Belgium), and the Czech Technical University in Prague. She has also undertaken academic exchanges at Shanghai Jiao Tong University and the Institute of Microbiology, Chinese Academy of Sciences. Currently serving as a research project manager at Wetsus, Liu has received support from the EU EXCITE project and collaborates with institutions such as BOKU and Wageningen University. She oversees and manages four PhD projects on topics including drinking water safety, flow cytometry, microbial resistance, magnetized water, and the impact of water quality on gut microbiota. In addition to her scientific work, she actively promotes Sino-Dutch collaboration and extends water technology research into the social sciences. She initiated and coordinates Wetsus' only social science theme and serves as the organization's China liaison officer.

## 大会报告人简介



**高云虎** 英国剑桥大学

高云虎，现为剑桥大学工程系博士后，本科、硕士、博士分别毕业于清华大学和剑桥大学。主要研究化工温室气体减排策略，从宏观模型、工程实践和未来低碳技术研发等层面开展工作。在Nature Food, Chemical Engineering Journal等期刊发表十余篇相关论文。设计、建造了三条氧18同位素生产线。

Dr. Yunhu Gao is currently a postdoctoral researcher in the Department of Engineering at the University of Cambridge. He completed his bachelor's, master's, and doctoral degrees at Tsinghua University and the University of Cambridge. His research focuses on strategies for reducing greenhouse gas emissions in chemical engineering, spanning macro-level modeling, engineering practices, and the development of future low-carbon technologies. He has published over ten papers in journals such as Nature Food and the Chemical Engineering Journal. In addition, Dr. Gao has designed and constructed three production lines for oxygen-18 isotopes.

## 大会报告人简介



**阮楚晋** 瑞士联邦水科学与技术研究所 (Eawag)

阮楚晋 博士，瑞士联邦水科学与技术研究所 (Eawag) 博士后研究员。主要研究方向包括：表面微生物群落组装及演化、微生物间相互作用及其生态学意义、微生物群落功能及调控机制。目前以第一作者在Nature Communications、Current Biology、npj Biofilms and Microbiomes、ISME Communications等期刊发表学术论文。曾获得留学基金委项目以及博士后派出项目特别资助。《土壤学报》青年编委，The ISME Journal等期刊审稿人。

Dr. Chujin Ruan is a postdoctoral researcher at the Swiss Federal Institute of Aquatic Science and Technology (Eawag). His primary research focuses on the assembly and evolution of surface microbial communities, microbial interactions and their ecological significance, and the functions and regulatory mechanisms of microbial communities. Dr. Ruan has published academic papers as the first author in journals such as Nature Communications, Current Biology, npj Biofilms and Microbiomes, and ISME Communications. He has received special funding support from the China Scholarship Council (CSC) for his studies and postdoctoral research. He also serves as a youth editorial board member for Acta Pedologica Sinica and as a reviewer for journals such as The ISME Journal.

## 大会报告人简介



**田开兰** 中国科学院数学与系统科学研究院

田开兰，中国科学院数学与系统科学研究院副研究员、博士生导师，剑桥大学、伦敦大学学院高级访问学者，获得荷兰格罗宁根大学经济学博士学位、中国科学院大学管理学博士学位，曾获得中国科学院学部决策咨询优秀成果奖、国家能源集团科技奖一等奖等奖项。主要研究领域包括投入产出技术、全球产业链供应链价值链、数量经济学和环境经济学等，出版了中、英文专著各1部，在重要学术期刊发表论文30余篇，包括Nature子刊、Regional Studies、Energy Economics、Environmental Science & Technology和Applied Energy等。主持国家自然科学基金面上和青年项目、国家统计局重点项目、中国科协项目等课题，作为核心成员参与国家自科基金委基础科学中心项目、国家社科基金重大项目和商务部重大项目等多项课题。

Dr. Kailan Tian is an Associate Research Fellow and doctoral supervisor at the Academy of Mathematics and Systems Science, Chinese Academy of Sciences. She has been a senior visiting scholar at the University of Cambridge and University College London. Dr. Tian holds a PhD in Economics from the University of Groningen, Netherlands, and a PhD in Management from the University of the Chinese Academy of Sciences. He has received several prestigious awards, including the Outstanding Achievement Award for Decision-Making Consultation from the Chinese Academy of Sciences and the First Prize for Science and Technology from the China Energy Group. His primary research focuses on input-output analysis, global supply chain and value chain studies, quantitative economics, and environmental economics. She has authored one monograph each in Chinese and English and published over 30 papers in prominent academic journals, including Nature sub-journals, Regional Studies, Energy Economics, Environmental Science & Technology, and Applied Energy. Dr. Tian has led several projects, including the National Natural Science Foundation's General and Youth programs, key projects of the National Bureau of Statistics, and programs funded by the China Association for Science and Technology. As a core team member, he has contributed to multiple major initiatives, including the National Natural Science Foundation's Basic Science Center projects, National Social Science Foundation major projects, and major projects of the Ministry of Commerce.

## 大会报告人简介



### 熊毕景 瑞士苏黎世联邦理工学院

熊毕景，生物化学博士，现为苏黎世联邦理工学院博士后，ETH Postdoctoral Fellowship 获得者（2023-2025）。分别于2013、2017、2022年获得学士（云南大学-生物学院）、硕士（城市环境研究所-环境科学）、博士（德国亥姆霍兹环境研究中心-生物化学）学位。博士期间曾获德国DAAD访问项目在法国波城大学从事访问研究。研究方向主要包括：基于单细胞调控的微流控研发，单细胞水平抗生素抗性的演化，以及微生物互作对病原菌耐药性的影响。

Dr. Bijing Xiong holds a PhD in Biochemistry and is currently a postdoctoral researcher at ETH Zurich. She is a recipient of the prestigious ETH Postdoctoral Fellowship (2023–2025). Dr. Xiong earned his bachelor's degree from Yunnan University (School of Life Sciences) in 2013, her master's degree in Environmental Science from the Institute of Urban Environment in 2017, and her PhD in Biochemistry from the Helmholtz Centre for Environmental Research in Germany in 2022. During her doctoral studies, he was awarded a DAAD Fellowship and conducted research at the University of Pau in France. Her research focuses on the development of microfluidic systems for single-cell regulation, the evolution of antibiotic resistance at the single-cell level, and the impact of microbial interactions on the antibiotic resistance of pathogens.

## 大会报告人简介



**罗珊** 英国利物浦大学

罗珊，现为英国利物浦大学讲师。2017年毕业于中山大学，曾获德国亚历山大洪堡博士后奖学金。研究方向主要包括生物多样性维持机制，生物多样性生态系统功能关系；全球环境变化对植物种间相互作用和植物-土壤微生物相互作用的影响。相关成果发表在 Nature Communications, New Phytologist 等杂志。

Shan Luo is currently a Lecturer at the University of Liverpool, UK. She graduated from Sun Yat-sen University in 2017 and was a recipient of the prestigious Alexander von Humboldt Postdoctoral Fellowship in Germany. Her research focuses on the mechanisms underlying biodiversity maintenance, the relationships between biodiversity and ecosystem functions, and the effects of global environmental changes on plant-plant interactions and plant-soil microbial interactions. Her work has been published in renowned journals such as Nature Communications and New Phytologist.



## 大会报告人简介



### Theo Huisman 卡塔尔哈马德-本-哈利法大学 (HBKU)

Theo Huisman, 在苏黎世联邦理工学院 (ETH Zurich) 获得环境工程学硕士学位, 同时与 Eawag 和南洋理工大学 (NTU) 合作研究各种膜过滤系统。他在阿卜杜拉国王科技大学 (KAUST) 海水淡化和回用中心获得博士学位, 导师是 Johannes Vrouwenvelder 教授。他目前是卡塔尔哈马德-本-哈利法大学 (HBKU) Peter Desmond 教授博士小组的博士后研究员。他的研究重点是膜过滤和输水系统中的生物膜形成和生物污垢。

Theo Huisman earned his master's degree in Environmental Engineering from ETH Zurich, where he collaborated with Eawag and Nanyang Technological University (NTU) on various membrane filtration systems. He later completed his PhD at the King Abdullah University of Science and Technology (KAUST) in the Center for Desalination and Reuse, under the supervision of Professor Johannes Vrouwenvelder. He is currently a postdoctoral researcher in the research group of Professor Peter Desmond at Hamad Bin Khalifa University (HBKU) in Qatar. His research focuses on biofilm formation and biofouling in membrane filtration and water transport systems.

## 大会报告人简介



**李昭** 德国亚琛工业大学

李昭来自德国亚琛工业大学环境工程研究所 (ISA) 生物膜工程研究小组。研究重点是利用反渗透膜再生废水过程中的有机碳传输管理。专长是先进的膜过滤技术和生物膜监测，这对优化中水回用工艺至关重要。拥有亚琛工业大学土木工程硕士学位，专业是水管理和回用。第一篇论文发表在Desalination杂志上，研究了商用反渗透膜的溶解有机碳过滤如何影响有机溶质去除。

Li Zhao is from the Institute of Environmental Engineering (ISA) at RWTH Aachen University in Germany, specifically the Biofilm Engineering Research Group. The research focus is on the management of organic carbon transport during the regeneration of wastewater using reverse osmosis membranes. Expertise lies in advanced membrane filtration technologies and biofilm monitoring, which are crucial for optimizing the process of water reuse. Li holds a Master's degree in Civil Engineering from RWTH Aachen University, with a specialization in water management and reuse. The first paper was published in the Desalination journal, studying how the filtration of dissolved organic carbon in commercial reverse osmosis membranes affects the removal of organic solutes.

# 大会报告人简介

## 李盛结 德国马普所海洋微生物所



李盛结，德国马普所海洋微生物所研究科学家 (Research Scientist)，于2017、2022年分别获得学士 (山东大学-环境科学)、博士 (北京大学-环境工程) 学位，博士期间 (2020-2021) 曾于卡尔加里大学交流访学。研究方向主要包括：(1)水环境微生物氮循环、(2)海洋单颗粒物附着微生物、(3)环境变化下微生物响应机制等方面的研究。已发表SCI论文19篇，其中11篇第一作者SCI论文发表在The ISME Journal、Water Research、Environmental Microbiology、Environment International等重要期刊。

Shengjie Li is a Research Scientist at the Max Planck Institute for Marine Microbiology in Germany. She obtained his bachelor's degree in Environmental Science from Shandong University in 2017 and her doctoral degree in Environmental Engineering from Peking University in 2022. During her PhD studies, she conducted an academic exchange at the University of Calgary from 2020 to 2021.

Her research focuses on:

Microbial nitrogen cycling in aquatic environments,

Microbial communities attached to marine single particles,

Microbial responses to environmental changes.

She has published 19 SCI papers, including 11 first-author papers in leading journals such as The ISME Journal, Water Research, Environmental Microbiology, and Environment International.

## 大会报告人简介

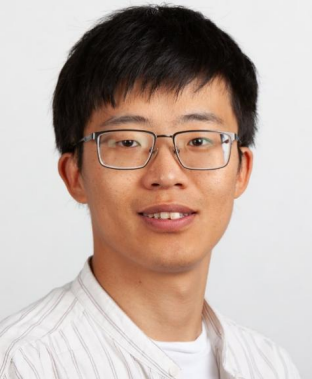


**张利权** 英国伦敦大学学院

张利权，伦敦大学学院（UCL）全额博士奖学金获得者，数理学院院长、皇家化学会会士Ivan P. Parkin教授团队成员。硕士毕业于中国科学院大学广州能源研究所。研究聚焦于碱性环境下氧化钌的反常析氢现象，系统探讨了氧化钌在反应过程中的重构现象以及氧化钌析氢反应中的Volmer步骤机理，并揭示纳米针阵列结构在提升钌基析氢反应催化性能方面的作用。此外，研究还涉及乙二醇等小分子电化学氧化，为绿色能源和碳中和提供新思路。

Liquan Zhang is a recipient of the full PhD scholarship from University College London (UCL) and a member of Professor Ivan P. Parkin's team, a Fellow of the Royal Society of Chemistry and the Dean of the Mathematical and Physical Sciences School at UCL. He obtained his Master's degree from the Guangzhou Institute of Energy Research, University of Chinese Academy of Sciences. His research focuses on the anomalous hydrogen evolution reaction (HER) of ruthenium oxide in alkaline environments, systematically exploring the reconstruction phenomenon of ruthenium oxide during the reaction process and the Volmer step mechanism in the HER of ruthenium oxide. Additionally, his work reveals the role of nanoneedle array structures in enhancing the catalytic performance of ruthenium-based HER. His research also involves the electrochemical oxidation of small molecules such as ethylene glycol, providing new insights for green energy and carbon neutrality.

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**师城** 瑞士联邦水科学与技术研究所

师城，瑞士联邦水科学与技术研究所博士后，主要从事环境扰动对生态系统中地球化学过程和微生物过程影响的化学表征，利用统计学和机器学习等手段提取环境样品非靶向分析数据中的环境信号并预测环境胁迫源和变化趋势。2024 年博士毕业于俄勒冈州立大学，相关成果发表在 *Environmental Science & Technology* 等杂志。

Cheng Shi is a postdoctoral researcher at the Swiss Federal Institute of Aquatic Science and Technology (Eawag). His research focuses on the chemical characterization of the impacts of environmental disturbances on geochemical and microbial processes within ecosystems. He employs statistical and machine learning methods to extract environmental signals from untargeted analysis data of environmental samples and to predict sources and trends of environmental stressors. He earned his PhD from Oregon State University in 2024. His research findings have been published in journals such as *Environmental Science & Technology*.

## 大会报告人简介



**于耀淳** 瑞士联邦水生科学与技术研究所

于耀淳，瑞士联邦水生科学与技术研究所（Eawag）环境化学系博士后研究员。于2015、2017、2021年分别获得学士（吉林大学-水文与水资源）、硕士（伊利诺伊大学香槟分校-环境科学与工程）、博士（伊利诺伊大学香槟分校-环境科学与工程）学位。博士期间（2019-2021），曾作为访问项目科学家在加州大学河滨分校从事研究。研究方向主要包括新型有机污染物（有机氟化物）在环境中的迁移转化、污染物的（微生物）转化产物及转化路径分析、微生物群落特征 / 功能微生物 / 功能基因 / 功能酶的解析。

Yaochun Yu is a postdoctoral researcher in the Department of Environmental Chemistry at Eawag. He earned his bachelor's degree in Hydrology and Water Resources from Jilin University in 2015, and his master's and doctoral degrees in Environmental Science and Engineering from the University of Illinois Urbana-Champaign in 2017 and 2021, respectively. During his PhD studies (2019–2021), he served as a visiting project scientist at the University of California, Riverside. His research focuses on the environmental transport and transformation of emerging organic contaminants, particularly organofluorine compounds. He also investigates the microbial transformation products and pathways of contaminants, as well as the characterization of microbial communities, functional microorganisms, functional genes, and functional enzymes.

## 大会报告人简介



**陈佩佩** 英国剑桥大学

陈佩佩，剑桥大学嘉治商学院能源政策研究中心博士后，伦敦大学学院巴特莱特学院博士，国际应用系统分析研究所合作学者。研究方向包括气候变化政策和能源转型分析，重点关注高碳行业碳排放和脱碳技术路径，成果以第一作者发表于Nature Energy, Applied Energy, Earth's Future等期刊，相关研究成果被联合国报告引用。获得国家优秀自费留学生奖学金，担任Technology Review for Carbon Neutrality青年编委。

Peipei Chen is a postdoctoral researcher at the Energy Policy Research Group, Cambridge Judge Business School, University of Cambridge. She earned her PhD from the Bartlett School at University College London and is a collaborative scholar at the International Institute for Applied Systems Analysis (IIASA). Her research focuses on climate change policy and energy transition analysis, with an emphasis on carbon emissions and decarbonization pathways in high-carbon industries. Her findings have been published as the first author in leading journals such as Nature Energy, Applied Energy, and Earth's Future, and her work has been cited in United Nations reports. Dr. Chen has received the National Award for Outstanding Self-Financed Students Abroad and serves as a youth editorial board member for Technology Review for Carbon Neutrality.

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### Maxime Van Haeverbeke Ghent University

马鑫，根特大学生物科学与工程与数学建模系的博士后研究员。他的研究包括开发和应用电化学阻抗谱（EIS）建模方法，广泛用于能源系统和生物医学应用等领域。已发表多篇经同行评审的论文，涉及等效电路建模、基于机器学习的细菌生物膜特征分析、植物阻抗建模以及生物信息学的数学方法。他的研究结合了数学技术、机器学习和电路建模，旨在解决能源存储、植物生理学和医疗诊断中的挑战。马鑫致力于推动EIS成为科学创新的多功能工具，并开发了涵盖阻抗建模新进展的开源软件。

Maxime Van Haeverbeke is a postdoctoral researcher in bioscience engineering and mathematical modelling at Ghent University. His research includes developing and applying electrochemical impedance spectrum modelling approaches to diverse fields, including energy systems and biomedical applications. He has authored several peer-reviewed publications, including work on equivalent electrical circuits for EIS, bacterial biofilm characterization using machine learning, plant impedance modeling and mathematical approaches for bioinformatics. His studies combine mathematical techniques, machine learning, and circuit modelling to address challenges in energy storage, plant physiology, and healthcare diagnostics. Maxime contributes to advancing EIS as a versatile tool for scientific innovation and develops open-source software covering new developments in impedimetric modelling.

















