



南科大 环境学院  
SUSTech | School of Environment

广东省深圳市南山区学苑大道1088号  
No. 1088, Xueyuan Blvd., Nanshan District,  
Shenzhen Guangdong, P.R. China

T 0755-8801 0822 P.C 518055  
<http://ese.sustech.edu.cn>



南方科技大学  
SOUTHERN UNIVERSITY OF SCIENCE AND TECHNOLOGY



南科大 环境学院  
SUSTech | School of Environment

SOUTHERN UNIVERSITY OF  
SCIENCE AND TECHNOLOGY

**SCHOOL OF ENVIRONMENT**

南方科技大学

**环境科学与工程学院**



# CONTENT



Overview  
学院概述



Advisory Board  
指导委员会



Development  
Objectives  
学院发展的中长期目标



Faculty  
师资



Education  
教育



Research  
科研



Technology  
Innovation and Application  
产学研

# 学院概述

## Overview

为顺应国家环境保护重大战略需求，2015年5月南方科技大学成立了环境科学与工程学院(以下简称“学院”)。国际地下水环境领域知名专家郑春苗教授担任创院院长，大气化学及空气污染领域知名专家杨新教授为现任院长。学院旨在水资源与水环境、土壤污染与修复、大气污染及其防治、工业生态、全球环境变化等领域开展前沿学术研究和高端人才培养。同时，学院致力于研发水处理、海水淡化、节能减排和环境遥感等与社会需求密切相关的先进技术。

The School of Environment was founded in May 2015, in response to the strategic development needs of environmental protection in China. The Founding Dean, Prof. Chunmiao Zheng, is a world-renowned expert in groundwater research. The current Dean of the School is Professor Xin Yang, a well-known expert in the field of atmospheric chemistry and air pollution. The School has focused on conducting cutting-edge research and cultivating talents in water resources and water quality, soil science and remediation, air pollution control, industrial ecology, global environmental change, and related areas. In addition, the School is developing advanced technologies for water treatment, desalination, energy saving and emission reduction, and environmental remote sensing, in order to meet the urgent needs of the society.

# 指导委员会

## Advisory Board



Steven Gorelick 院士  
美国斯坦福大学  
环境地球系统  
Stanford University  
Environmental Earth System Science



傅伯杰 院士  
中国科学院生态环境研究中心  
生态学  
Research Center for Eco-Environmental  
Sciences, CAS  
Ecology



Michael Hoffmann 院士  
美国加州理工学院  
环境工程  
California Institute of Technology  
Environmental Engineering



王光谦 院士  
清华大学/青海大学  
水力学与水资源  
Tsinghua University / Qinghai University  
Hydraulics and Water Resource



贺克斌 院士  
清华大学  
大气复合污染与控制研究  
Tsinghua University  
Air Pollution and Control



Mary P. Anderson 院士  
美国威斯康星(麦迪逊)大学  
水文地质  
University of Wisconsin-Madison  
Hydrogeology



## DEVELOPMENT OBJECTIVES

学院发展的中长期目标



我国环境科学与工程领域拔尖创新人才的培养基地  
A leading school for training and cultivating future talents and the next generation of leaders in the field of environmental science and engineering;



环境领域世界级的科学研究中心  
A world-class environmental science research center;



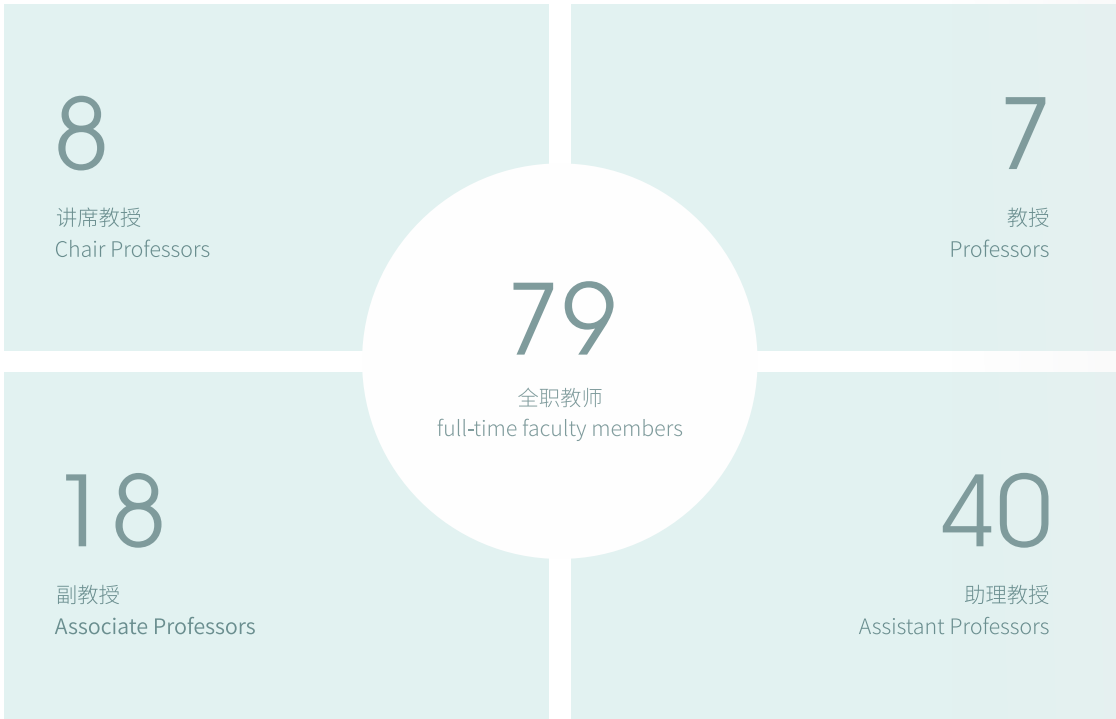
先进环保技术研发与产业化的国家级平台  
A national platform for development and industrialization of advanced environmental technologies.



Faculty  
师资



师资 Faculty



学院拥有国内一流的师资队伍，现有全职教师79人、兼职教师4人，包括讲席教授8名、教授/研究教授7名、副教授/研究副教授18人、助理教授/研究助理教授40人。其中美国国家工程院院士1人、中国科学院院士1人，欧洲科学院院士1人、美国地球物理联合会会士1人、国家杰出青年科学基金获得者3人、教育部特聘专家2人、国务院特殊津贴专家4人、国家优秀青年科学基金获得者4人、教育部特聘青年学者2人、及其他多位国家级人才。

The School has attracted an outstanding faculty in environmental science and engineering. The School currently has 79 full-time faculty members and 4 part-time faculty members, including 8 Chair Professors, 7 Professors/Research Professors, 18 Associate Professors/ Research Associate Professors, and 40

Assistant Professors/Research Assistant Professors. The faculty has received numerous honors and distinctions. Among the faculty members, one is a Member of the U.S. National Academy of Engineering, one is a Member of Chinese Academy of Science, one is Members of Academia Europaea, and one is a Fellow of the American Geophysical Union. In addition, there are 3 National Natural Science Foundation of China (NSFC) Outstanding Scientist, 2 Ministry of Education Chair Professors, 4 Recipients of State Council Expert Special Allowance, 4 NSFC Outstanding Young Scientists, 2 Recipients of the Ministry of Education Junior Faculty Award, and other national talents. All faculty members have prior experiences studying and/or working abroad.

现任院长 DEAN



杨新 YANG Xin

讲席教授 香港科技大学博士、教育部特聘专家、国务院特殊津贴专家。主要研究领域包括：大气气溶胶物理化学特性及环境气候效应、城市区域空气质量、新型环境检测技术研发等。重点研究大气中重要一次颗粒物来源、城市大气环境二次气溶胶组分形成机制、利用高时间分辨物理化学性质测量对大气颗粒物的环境效应进行精确表征。发表学术论文160余篇。

Chair Professor. Ph.D., Hong Kong University of Science & Technology, Distinguished Professor by Ministry of Education of China, State Council Expert for Special Allowance. Dr. Yang's research interests include physical and chemical properties of atmospheric aerosol and their impacts on human health and global climate; urban air quality; instrument development on environmental analysis. He is author or co-author of over 160 peer-reviewed journal papers.

创院院长 FOUNDING DEAN

郑春苗 ZHENG Chunmiao



讲席教授 美国威斯康星(麦迪逊)大学博士、美国地球物理联合会会士(AGU Fellow)和美国地质学会会士(GSA Fellow)。曾任北京大学讲席教授及水科学研究中心主任、美国阿拉巴马大学Lindahl终身讲席教授、国际水文科学协会(IAHS)国际地下水委员会主席。研究领域包括地下水污染机理与修复技术、流域尺度生态-水文过程、全球变化与新型污染物对水资源可持续利用的影响等。开发了地下水污染模拟标准软件MT3D/MT3DMS，在100多个国家得到广泛使用。发表了论文350多篇及专著6部，谷歌学术被引用总数超过1.5万次。获得的荣誉包括：1998年美国地下水协会John Hem杰出贡献奖、2009年美国地质学会Birdsall-Dreiss杰出讲席奖、2013年美国地质学会O. E. Meinzer Award(国际水文地质界最高荣誉)、2013年美国地下水协会M. King Hubbert Award(该协会最高科学奖)、2014年美国威斯康星(麦迪逊)大学地学系杰出校友奖。

Chair Professor. Ph.D., University of Wisconsin-Madison, Fellow of the American Geophysical Union (AGU) and the Geological Society of America (GSA). Prior to his current appointment, he was Chair Professor and Director of the Institute of Water Sciences at Peking University, and the George Lindahl III Endowed Professor at the University of Alabama. His research interests include groundwater contaminant transport and remediation, basin-scale eco-hydrologic processes, and impacts of global change and emerging contaminants on water sustainability. He is the developer of the MT3D/MT3DMS series of contaminant transport codes used in over 100 countries, and author or co-author of over 350 SCI papers and 6 books with over 15,000 citations on Google Scholar. He was awarded the Birdsall-Dreiss Distinguished Lectureship (2009) and the O. E. Meinzer Award (2013) by the Geological Society of America, and the John Hem Award (1998) and the M. King Hubbert Award (2013) by the National Ground Water Association (USA). He was also recipient of the Distinguished Alumni Award (2014) from the Department of Geoscience, University of Wisconsin-Madison.

## 院士 ACADEMICIAN



张东晓 ZHANG Dongxiao

讲席教授 美国亚利桑那大学博士、美国国家工程院院士，现任南方科技大学副校长兼教务长。国家杰出青年科学基金获得者，美国地质学会会士(GSA Fellow)、国际石油工程师协会 SPE 最高荣誉会员。曾任美国南加州大学Marshall终身讲席教授、北京大学工学院院长、研究生院常务副院长，曾兼任中国研究生院院长联席会秘书长、中国学位与研究生教育学会文理科工作委员会主任和中国学位与研究生教育学会评估委员会副主任。研究领域为能源与环境，其随机理论建模、数值计算等方面成果已被国际同行广泛采用。发表学术论

文220余篇，专著《渗流随机理论》为领域内代表性著作。曾任八种国际学术期刊副主编。主持基金委杰青、重点等国家级项目7项。已培养博士33人、硕士5人。

Chair Professor. Ph.D., University of Arizona. He is a Member of the U.S. National Academy of Engineering, provost and vice president for academics of Southern University of Science and Technology. He is also an Honorary Member of the Society of Petroleum Engineers, and a Fellow of the Geological Society of America. and recipient of Distinguished Young Scholars by National Natural Science Foundation of China. He has served as the Gordon S. Marshall Chair Professor at the University of Southern California, the dean of the College of Engineering of Peking University, and the executive vice dean of the Graduate School of Peking University. He has also served concurrently as the secretary-general of the Association of Chinese Graduate Schools, director of the Liberal Arts and Science Committee, and the deputy director of the Evaluation Council of the Chinese Society of Academic Degrees and Graduate Education. Professor Zhang's research areas include energy and environment, and his research achievements in stochastic modeling, numerical simulation, inverse modeling and machine learning are widely adopted by his peers. He has published more than 220 academic papers, and Stochastic Methods for Flow in Porous Media is a representative work in the field. He has been an associate editor for 8 internationally renowned journals, and presided 7 national projects including National Science Fund for Distinguished Young Scholars and other key programs. He supervised 33 PhD students and 5 M.Sc. students.



陶澍 TAO Shu

讲席教授 1950年生，江苏省无锡市人，1977年毕业于北京大学地质地理系，1981年、1984年获美国堪萨斯大学硕士、博士学位。2009年当选为中国科学院地学部院士。1984年至2020年在北京大学工作。现为南方科技大学环境科学与工程学院讲席教授。曾主持国家自然杰出青年基金(1995)、创新研究群体(2000)和包括面上、重点、重大和重大国际合作在内的多项自然科学基金及科技部和生态环境部研究项目。目前兼任国家环境生态咨询委员会委员、国家环境与健康专家咨询委员会委员、Environmental Science & Technology副主编及多个国内外刊物主编、副主编和编委等。主要从事微量有毒污染物

排放、行为、归趋和效应等区域尺度环境过程的研究。目前重点包括全球污染物排放清单、污染物迁移和暴露模拟以及农村生活源污染物生成和对室内外空气质量及健康影响等。在国际学术期刊发表第一或通讯作者论文200余篇。Web of Science引用超过两万次，H指数80。

Chair Professor, Ph.D., University of Kansas. Professor Tao is a member of the Chinese Academy of Sciences, a member of the National Steering Committee on Eco-Environmental Protection, and a member of the National Steering Committee on Environmental Health. He also serves as Associate Editor of Environmental Science & Technology. His current research interests include global emission inventories of various air pollutants atmospheric transport and population exposure modeling, household air quality, and policy evaluation. He has more than 200 papers published in peer-reviewed international journals, including four in PNAS, one in Nature Energy, and many in Environmental Science & Technology with total citation around 22,000 and H-index (Web of Science) of 80.



刘俊国 LIU Junguo

讲席教授 瑞士苏黎世联邦理工学院博士、欧洲科学院院士。国家杰出青年科学基金获得者，入选科技部科技创新领军人才，英国皇家气象学会会士、英国皇家地理学会会士。在水资源时空演变、水质性缺水评价和河流生态修复等方面取得了系统性创新成果，提出了三维水资源短缺理论以及渐进式生态修复理论，研究工作在国内外产生了重要影响。出版中英文/译注7部，发表论文230余篇。曾担任9份国内外学术刊物执行主编、主编、副主编、编委等职。创建了中国首个聚焦生态修复的省级学会—北京生态修复学会，并担任首任和第二任理事长。曾获世界科学院奖、欧洲地球科学联合会“杰出青年科学家奖”、国际恢复生态学学会“技术传播奖”、中国青年科技奖、教育部高等学校科学研究优秀成果奖等。

Chair Professor. Ph.D., Swiss Federal Institute of Technology in Zurich (ETH Zurich). Member of Academia Europaea. His main research interests include hydrology and water resources, and ecological restoration. He has led a pioneering work on advancing water resources assessment in coupled human-natural systems, in particular for global hydrology research and water scarcity assessment by incorporating water resources quantity, quality and environmental flow requirement. He introduced the three-dimensional (3D) water scarcity theory, and the stepwise ecological restoration theory. He founded two ecological restoration organizations in China: The Society for Ecological Rehabilitation of Beijing (SERB), and the Union of Societies for Ecological Restoration and Environmental Protection (USEREP). Prof. Liu is author of 7 books and over 230 publications, including articles in Science (2), Nature (2), PNAS (3), Nature Climate Change (3), Nature Communications (2), Nature Sustainability (2) and Science Advances (1).

## 教研系列 TENURED OR TENURE-TRACK FACULTY



刘崇炫 LIU Chongxuan

讲席教授 美国约翰霍普金斯大学博士，美国地质学会(GSA)会士(Fellow)。长期从事污染物在地下水和土壤系统中的迁移、转化和降解机制研究和修复技术开发。在发展地球关键带的水文-地球化学动力学耦合理论和建立多尺度动力学模型、在发展土壤-地下水系统中微生物动力学理论和建立生物地球化学动力学与微生物群落演化的耦合模型，在开发土壤-地下水污染的自然修复和强化自然修复技术，以及开发捕获去除污水中重金属和放射性核素的纳米材料等方面取得了多项成果。现任国际SCI期刊地球和空间化学 (ACS Earth and Space Chemistry) 副主编，发表SCI论文180多篇，其中Nature-index期刊文章80多篇，H因子51。

Chair Professor. Ph.D., Johns Hopkins University, Fellow of Geological Society of America (GSA). His research focuses on the multi-scale kinetics of the transformation, degradation and transport of contaminants in groundwater and soil systems; the coupled evolution of microbial community and biogeochemical processes; and the technologies for remediating contaminants in soil and groundwater systems, and the synthesis of engineered materials for extracting heavy metals from wastewater. He is the PI or Co-PI for over 20 projects, and authored and co-authored over 180 peer-reviewed articles and H factor 51. He is Associated Editor of ACS Earth and Space Chemistry.





## 郑焰 ZHENG Yan

讲席教授 美国哥伦比亚大学博士、美国地球物理联合会会士、美国地质学会会士。曾任北京大学讲席教授、纽约市立大学终身教授、美国哥伦比亚大学高级研究员、联合国儿童基金会驻孟加拉国水及环境卫生项目专员。从事水环境与健康、地下水人工回补、水质分析等研究。在Science、Nature Geosci、PNAS、EHP、ES&T等期刊上发表论文130多篇，谷歌学术引用上万次，H-指数51，并主持撰写联合国政策报告四本，发布专著一部。成果应用于孟加拉国、中国、美国，解决了数百万高砷暴露人口的饮水安全问题，获得纽约时报科学版专文报道。现任国际水文地质学家协会地下水人工回补委员会共同主席、斯德哥尔摩水奖提名委员会委员、Environmental Earth Sciences主编\Water Resources Research副主编、《水文地质工程地质》编委等。

Chair Professor. Ph.D., Columbia University. Fellow of the American Geophysical Union and the Geological Society of America. Professor Zheng was a Chair Professor at Peking University, a tenured Full Professor at City University of New York, an adjunct senior research scientist at Columbia University, and a water and sanitation specialist with UNICEF Bangladesh. Professor Zheng is known for her multi-disciplinary research that led to the reduction of exposure to drinking water arsenic among millions of private well households in Bangladesh, China and USA through changes in policy and practice. She has published >130 peer reviewed journal articles (Google Scholar citation ~10,000, h-index 51, verified Oct 11, 2021) in areas including hydrogeochemistry, environmental health and policy. Currently, she serves as the Editor-in-Chief for Environmental Earth Sciences, an Associate Editor for Water Resources Research, as a member of the Stockholm Water Prize Nomination Committee and as a Co-Chair for the International Association of Hydrogeologists – Managing Aquifer Recharge Commission.

## 李海龙 LI Hailong



讲席教授 香港大学水文地质学博士、湖北省楚天学者、国家杰出青年科学基金、国务院自然科学教育类突出贡献政府特殊津贴获得者。主要从事海底地下水排泄和海岸带地下多组分(如盐分、营养盐、示踪剂等)多相流(如水气两相流)及其生态环境效应方面的研究。发表论文200余篇，其中在Nature Geoscience、GRL、JGR、WRR、GCA 等水文水资源水环境领域主流期刊发表SCI论文100多篇，发明专利5项。主持包括基金委重点项目、科技部973项目一级课题等12项科研项目。现任Advances in Water Resources、Water Science and Engineering、《盐湖研究》编委。入选爱思唯尔(Elsevier) 2020中国高被引学者。培养博士后、博士、硕士80多名。

Chair Professor. Ph.D. of Hydrogeology from The University of Hong Kong. Professor Li received funding as a Chutian Scholar of Hubei Province and from the Outstanding Young Scientist Fund of NSFC. His research interests focus on submarine groundwater discharge and subsurface multi-component (such as nutrients, tracers and salt), multi-phase flows (such as air and groundwater) and their ecological environmental effects. He has published over 200 research articles, including over 100 SCI articles in leading international journals such as Nature Geoscience, GRL, JGR, WRR and GCA in the field of hydrology, water resources and the environment. He has obtained funding for over 12 research projects including the NSFC Key Program and the 973 Program. Professor Li serves as Associate Editors for Advances in Water Resources, Water Science and Engineering, and Journal of Salt Lake Research.



## 胡清 HU Qing

特聘教授 英国帝国理工大学环境化学、环境污染和水文学专业博士，2017年荣获国家科学技术进步奖二等奖，2020年荣获环境技术进步奖一等奖，2019年环境保护科学技术奖二等奖，2016年荣获IBM全球杰出学者奖，2013年被授予“国务院政府特殊津贴专家”称号，2012年获教育部科技进步一等奖，2011年获得人保部高层次留学人才回国资助人才。先后担任生态环境部土壤生态环境保护专家咨询委员会委员，住建部科学技术委员会科技协同创新专业委员会委员，科技部中长期战略规划特聘专家。在大数据与生态环境、城市环境工程、污染场地绿色可持续修复与管理、生态环境发展战略与政策标准研究、环境健康、绿色环保及循环技术等多个专业领域积累了深厚的理论知识和丰富的国内外实践经验。主持并参与二十余项国家及省部级科研课题；协助国家多个部委对我国污染场地修复行业进行顶层设计、参与“十四五”规划工作。

Professor. Ph.D., Imperial College London, UK. State Council Expert for Special Allowance. She has more than 30 years researches and working experiences in ecological and environmental protection areas. She received the China top-tier Awards of National Science and Technology Progress Award (2017); the Prize of Environmental Protection Science and Technology Award of Ministry of Ecology and Environment (2019); IBM Faculty Award (2016). Professor Hu's career has spanned academia, industry and social sector. Through decades of dedication to academia and the community, Professor Hu has great recognition of her professional portfolio and extensive network within academia, NGOs, UN systems and the private sectors. She was a member of the Stockholm Water Prize Nominating Technical Committee/ Lee Kuan Yew Water Prize Nominating Committee/ IWA World Water Congress & Exhibition Programme Committee. She has been working with World Bank and Asian Development Bank since 1999.



## 张作泰 ZHANG Zuotai

教授 瑞典皇家工学院博士、国家优秀青年基金获得者。现任深圳市城市固体废弃物资源化技术与管理重点实验室主任、广东省土壤与地下水修复重点实验室副主任，在固废高效清洁利用领域取得一定成绩。近五年主持包括自然科学基金委优秀青年基金、国家重点研发计划、深圳市学科布局等10余项国家、省部级科研项目。近五年在Appl. Cat. B: Environ., Appl. Energy、ACS Sustain. Chem. & Eng., Waste. Manag., J. Hazard. Mater.等国际知名期刊发表SCI文章80余篇；申请国家发明专利 20 余项，有多项专利实现技术转让。担任Journal of

Cleaner Production 副主编、《中国科学:技术科学》青年编委等。担任中国硅酸盐学会固废分会副理事长等职务。获得广东省环境协会二等奖、中国循环经济协会技术一等奖、北京市科技进步二等奖。

Professor. Ph.D., Royal Institute of Technology, Sweden. He is the Director of Key Laboratory of Municipal Solid Waste Recycling and Management of Shenzhen City. Dr. Zhang's research interests include the efficient and clean utilization of solid waste and conducted thorough researches on the integrated utilization of waste heat/resource of metallurgical slag, the recycling valuable elements of metallurgical slag, the transformation and utilization of energy solid waste, and the transformation and migration mechanism of harmful elements based on the such key scientific issues in the process of the efficient cleaning utilization of solid waste. He has published more than 80 SCI papers in leading journals, including Appl. Cat. B: Environ., Appl Energy., ACS Sustain. Chem. & Eng., Waste. Manag., J. Hazard. Mater., and applied for 30 patents. Dr. Zhang also serves as Associate Editor of Journal of Cleaner Production, Vice-Chair of Solid Waste Subcommittee of Chinese Ceramic Society of China.

## 郑一 ZHENG Yi



教授 美国加州大学圣巴巴拉分校博士、国家优秀青年科学基金获得者、环境科学与工程学院副院长。主要从事生态水文模拟、水资源管理、环境大数据分析等方面研究，是国际水文水资源领域权威期刊 Water Resources Research及SCI期刊Journal of Hydrologic Engineering-ASCE的副主编，兼任国家环境保护流域地表水-地下水污染综合防治重点实验室副主任、中国自然资源学会青年工作委员会的副主任、深圳市环境物联网技术与应用工程实验室主任等职。发表SCI论文80多篇，主要发表于Water Resources Research、Geophysical Research Letters、Journal of Hydrology、Environmental Science &

Technology、Water Research、Environmental Modelling & Software等专业领域顶尖学术期刊。曾获中国自然资源学会“优秀科技奖”。

Professor. Ph.D., University of California, Santa Barbara. Recipient of NSFC Excellent Young Scholars Award. He is currently an Associate Dean of the School of Environment Science and Engineering at SUSTech. His main research areas include ecohydrological modeling, water resources management and environmental big data analysis. He serves as an associate editor of two SCI journals, Water Resources Research (top journal in this field) and Journal of Hydrologic Engineering-ASCE. He is an Associate Director of State Environmental Protection Key Laboratory of Integrated Surface Water-Groundwater Pollution Control, a Vice Chair of the Young Scientists Committee in China Society of Natural Resources, and the director of Shenzhen Municipal Engineering Lab of Environmental IoT Technologies. He has published over 80 SCI papers, mostly in top journals such as Water Resources Research, Geophysical Research Letters, Journal of Hydrology, Environmental Science & Technology, Water Research, Environmental Modelling & Software. He received Outstanding Science and Technology Award from China Society of Natural Resources.



## 傅宗玫 FU Tzung-May

教授 美国哈佛大学地球与行星科学博士。曾任北京大学物理学院大气与海洋科学系长聘副教授、研究员，及香港理工大学土木与结构工程系助理教授。主要研究领域包括空气污染、全球及区域大气化学、化学-气候相互作用等。重点研究大气有机气体与有机气溶胶、对流层臭氧、气候与空气质量相互作用、云-气溶胶相互作用、大气组分遥感及反演、污染物长程传输、海-气交换等。发表SCI论文40余篇。曾获国家自然科学基金委优秀青年基金、中国气象学会涂长望青年气象科技奖二等奖、教育部特聘青年学者、教育部高校自然科学奖二等奖等。

Professor. Ph.D., Harvard University. Prior to her current appointment, Fu was Associate Professor and “Bairen” Professor in the Department of Atmospheric and Oceanic Sciences, Peking University, and Assistant Professor in the Department of Civil and Structural Engineering, Hong Kong Polytechnic University. Her research interests are in air pollution, global and regional atmospheric chemistry, and chemistry-climate interactions. Research topics include organic gases and organic aerosols, tropospheric ozone, climate-air quality interactions, cloud-aerosol interactions, remote sensing and inverse modeling of atmospheric constituents, pollutant long-range transport, and air-sea exchange of organics. Fu has authored or co-authored more than 40 SCI peer reviewed papers. She has won the National Natural Science Foundation of China Outstanding Young Scientist Fellowship, the Tu Chang Wang Award in Meteorological Science and Technology, Distinguished Junior Faculty of the Ministry of Education, and the Second Prize of Natural Science Award of Ministry of Education.





## 匡星星 KUANG Xingxing

副教授 香港大学博士、深圳市海外高层次人才。研究领域包括饱和-非饱和流、水气二相流、溶质运移数值模拟以及地下水对气候变化的响应等研究。现主持一项国家自然科学基金重大研究计划重点支持项目。在水资源领域顶级或重要学术期刊Geophysical Research Letters、Water Resources Research、Journal of Geophysical Research: Atmospheres、Journal of Hydrology、Hydrological Processes等上发表论文50余篇。长期担任水资源领域多个学术期刊的审稿人，包括Water Resources Research、Earth and Planetary Science Letters、Geophysical Research Letters、Groundwater、Vadose Zone Journal等。2014-2018年曾任水资源领域SCI期刊Hydrogeology Journal的副主编 (Associate Editor)。2014年获得AXA研究基金博士后奖学金。

Associate Professor. Ph.D., The University of Hong Kong. His main research interests including saturated-unsaturated flow, air-water two-phase flow in porous media, solute transport numerical modeling, and response of groundwater to climate change. He has published more than 50 papers in top journals of water resources, including Geophysical Research Letters, Water Resources Research, Journal of Geophysical Research: Atmospheres, Journal of Hydrology, and Hydrological Processes. He serves as a reviewer for several journals, including Water Resources Research, Earth and Planetary Science Letters, Geophysical Research Letters, Groundwater, and Vadose Zone Journal. He was an Associate Editor of Hydrogeology Journal during 2014-2018. In 2014, he was awarded the AXA Research Fund Post-Doctoral Fellowships.



## Luke Gibson

副教授 新加坡国立大学博士。加入南方科技大学之前曾任香港大学研究助理教授。他的研究方向包括森林破碎化、绿色能源、野生动物非法贸易以及动物迁徙等。研究区域以中国为中心，拓展至东南亚及东亚。他曾在Science和Nature等世界顶级刊物发表多篇学术论文。曾获香港大学王庚武奖及世界未来基金会环境与可持续研究博士生奖。

Associate Professor. Ph.D., National University of Singapore. Prior to his current appointment, he was Research Assistant Professor at the University of Hong Kong. His research expertise encompasses fragmentation, green energy, wildlife trade, and animal migration, centered in China but extending across Southeast and East Asia. His research has been published in Science and Nature. Among other awards, he received the Wang Gung Wu Medal & Prize and the World Future Foundation PhD Prize in Environmental and Sustainability Research.



## 史海匀 SHI Haiyun

副教授 清华大学博士。曾在香港大学从事博士后/高级研究助理工作，荣获香江学者奖（2014年）、深圳市海外高层次B类人才（2018年）。主要研究方向为数字流域、水信息学、气候变化、极端水文事件（洪水和干旱）、水资源可持续发展等。主持或参与国家科技支撑计划、国家自然科学基金等重要科研项目10余项。以第一作者或通讯作者在水文水资源和环境领域知名国际期刊上发表学术论文20余篇（其中ESI高被引论文1篇），另有英文专著章节3部。长期受邀作为Water Resources Research、Journal of Hydrology、Geophysical Research Letters等30余种知名国际期刊的审稿人，曾作为4种国际期刊的客座编辑，并担任AOGS (Asia Oceania Geosciences Society) 年会水文科学2个分会场的第一召集人。

Associate Professor. Ph.D., Tsinghua University. He worked previously as a Postdoctoral Fellow/Senior Research Assistant at The University of Hong Kong, and won the Hong Kong Scholars Award in 2014. His research interests include digital watershed, hydroinformatics, climate change, hydrological extremes (floods and droughts), and sustainable development. He has been the PI/Co-PI of more than 10 research projects. He has published over 20 journal papers as the first author or corresponding author in the field of hydrology and water resources. He has published 3 book chapters. He has been invited as the reviewer of over 30 international journals, including Water Resources Research, Journal of Hydrology, and Geophysical Research Letters. He has served as the Guest Editor of 4 international journals. He has served as the main convener of 2 sessions of Hydrological Sciences in AOGS (Asia Oceania Geosciences Society) annual meeting.



## 王钟颖 WANG Zhongying

副教授 美国布朗大学博士。先后在布朗大学工程学院Robert Hurt教授和加州大学伯克利分校Baoxia Mi教授课题组从事博士后研究工作。近年来在Chemical Society Reviews、PNAS、ACS Nano、Advanced Materials、Nano Letters、Environmental Science and Technology、Nanoscale等杂志发表论文20余篇，总引用次数1200余次。并担任Water Research、Environmental Science: Nano、Environmental Science and Technology等十余个杂志的独立审稿人。

Associate Professor. Ph.D., Brown University, USA. His research interests include environmental transformation and implications of nanomaterials, the applications of nanomaterials in the environmental fields, and membrane-based technologies for sustainable water supply. Dr. Wang has published 23 peer-reviewed papers on various journals, including Chemical Society Reviews, PNAS, ACS Nano, Advanced Materials, Nano Letters, Nanoscale, and Environmental Science and Technology. He serves as a reviewer for several journals, including Carbon, Water Research, Environmental Science: Nano, Journal of Hazardous Materials, and Environmental Science and Technology.

## 曾振中 ZENG Zhenzhong



副教授 北京大学博士。曾任美国普林斯顿大学博士后研究员，获邀担任 IPCC 第六次评估报告的同行评审专家，同时担任Nature Sustainability等29种SCI学术期刊的同行评审员。研究领域包括生态水文、陆气相互作用、全球环境变化和地球系统模拟等，致力于了解地球系统的动力机制，实现人类社会的可持续发展。当前研究侧重于热带地区的农业扩张、环境影响及其解决方案。累计发表SCI论文59篇，其中第一或通讯作者论文19篇，发表于Science、Nature Climate Change、Nature Geoscience等期刊，被引用4259次。部分研究成果被成为IPCC报告的支撑材料，并多次被科技媒体报道。

Associate Professor. Ph.D., Peking University. Postdoctoral Research Associate at Princeton University. A peer reviewer of Nature Sustainability and other 29 SCI academic journals, as well as the IPCC sixth report invited peer review expert. His research interests include ecological hydrology, land-atmosphere interaction, global environmental change and earth system simulation, etc. He aims at understanding the dynamic mechanism of the earth system to achieve a sustainable development of human society. His current research focuses on agricultural expansion, impacts and solutions in the tropical regions. He published a total of 59 SCI papers, among which 19 papers he is the first or the corresponding author, in journals such as Science, Nature Climate Change, Nature Geoscience, etc. The papers were cited 4259 times. Some of the research results have been used as supporting materials for the IPCC report and have been reported by the international scientific media many times.



## 唐圆圆 TANG Yuanyuan

副教授 香港大学博士。研究方向：固废污染防治及资源化、典型固废环境行为及环境影响等方面。主持及主要参与科研课题17项，包括国家自然科学基金面上项目和青年基金项目、广东省杰青、科技部重点研发计划、深圳市重点项目等。共发表SCI学术论文73篇，以第一/通讯作者发表Environ. Sci. Tech.、Water Res. 等论文54篇（封面文章5篇，2篇ESI高被引论文和1篇热点论文）。参编论著3部，申请专利15项，其中有2项实现技术转移。获广东省环境科学学会生态环境青年科技奖、深圳市优秀班主任、深圳市2020年度市科技进步奖一等奖（排名第五）、“香港工程师学会青年工程师/研究员优秀论文奖”、市“海外高层次人才”、校“年度青年教授”、“优秀青年科研奖”、“优秀教学奖”、“优秀书院导师”等荣誉。担任SCI期刊Environ. Geochem.

Hlth.副主编及Waste Manage. Res.编委，发起并承办“第一届粤港两地环境材料学术交流会”，担任深圳市水污染治理攻坚战决战青年先锋队队长，以及多个国际学术会议分会召集人、分会主席、专委会成员等。

Associate Professor. Ph.D., Ph.D., The University of Hong Kong. Dr. Tang's research interests include the pollution prevention and resource recycling of solid wastes, and the environmental behavior of plastic wastes. She has been granted by 16 research projects, including NSFC, Guangdong Provincial Science Fund for Distinguished Young Scholars, etc. Dr. Tang has published 73 SCI journal articles, 54 published as first/corresponding author, 5 highlighted as front cover, 2 ESI highly cited paper and 1 hot paper. She has also published 3 book chapters and more than 60 oral talk, and applied 16 patents. Dr. Tang organized “Guangdong-HK Environmental Materials Workshop in 2015”, and has been invited as keynote speaker and session chair by several international conference committees. She also got numerous awards, including “Youth Award of Guangdong Environmental Science Society”, “Excellent Head Teacher of Shenzhen” “Overseas High-Caliber Personnel, Shenzhen” and “The HKIE Outstanding Paper Award for Young Engineers/Researchers” as well as “Young Professor of the Year”, “Excellent Research Award”, “Excellent Teaching Award”, and “Excellent Mentor Award” of SUSTech.





## 陈洪 CHEN Hong

副教授 瑞典斯德哥尔摩大学博士，先后在瑞典皇家工学院、美国斯坦福大学与加州大学伯克利分校从事博士后研究工作，现任环境科学与工程学院党委副书记、深圳市材料界面科学和工程应用重点实验室副主任。主要从事资源循环利用化学与环境材料设计方面研究工作。近年来在Nature Materials、Science Advances、PNAS、Nature Comm.、JACS、Angew. Chem.、EST等杂志发表论文100余篇，谷歌学术总引用次数 4300 余次，H-index

35。获广东省环境科学学会生态环境青年科技奖金奖，主持广东省杰出青年基金、国家自然科学基金面上项目、深圳市基础研究重点项目、深圳市海外高层次引进人才项目、瑞典瓦伦堡基金会Maxlab IV同步辐射专项博士后基金等。并担任Environmental Chemistry Letters (Q1,IF=9.27)副主编和Chinese Chemical Letters (Q1,IF=6.67), Chemical Engineering JournalAdvances等杂志青年编委。

Associate Professor. Ph.D., Stockholm University. He finished his postdoctoral training at KTH-Royal Institute of Technology, Stanford Synchrotron Radiation Light source at Stanford University, University of California Berkeley. He has co-authored >100 peer reviewed papers on prestigious journals including Nature Materials、Science Advances、PNAS、Nature Comm.、JACS、Angew. Chem.、EST, etc. These publications received more than 3500 citations and an H-index of 35 according to Google Scholar. He was the receipt of the Distinguished Young Scholar of Guangdong Province and the Knut and Alice Wallenberg postdoctoral scholarship. He serves as the associate editor of Environmental Chemistry Letters. He is also an early career editor member of Chinese Chemical Letters and Chemical Engineering JournalAdvances.



## 冯炼 FENG Lian

副教授 武汉大学博士。美国南佛罗里达大学博士后。主要从事水环境遥感的理论、方法及应用研究。曾获得中国环境科学协会“青年科学家奖”获得者(2019)、广东省“珠江青年”学者(2018)、湖北省优秀博士论文等荣誉。主持国家自然科学基金项目3项，作为核心人员参与国家自然科学基金重大项目、重点项目、中科先导专项等多个科研项目。总计发表SCI论文70余篇，其中一半以上刊登在遥感、环境、地学等领域的TOP期刊。Google

Scholar引用2500余次，H-index为26，单篇最高被引>350次。论文多次入选ESI高被引论文，顶级期刊封面论文等。研究成果被生态环境部、中国资源卫星应用中心等国内相关部门成功应用，研究工作被中央电视台、美国航空航天管理局NASA、国际海洋水色协调工作组 (IOCCG) 等关注报道。

Associate Professor. Ph.D., Wuhan University. He was a postdoctoral researcher of the University of South Florida during 2015-2017. His research interests include remote sensing of inland and coastal water environments, and how these environments are influenced by climate variability and human activities. He is the recipient of the “Young Scientist Award” from the China Association for Environmental Sciences and the “Young Pearl River Scientist Award” from Guangdong Province. He also served as consultant for the U.S. National Oceanic and Atmospheric Administration, and the Geospatial Analysis Center for America University-Sharjah. He has been the PI/Co-PI of >10 funded projects, and he has published 60 peer-reviewed papers, more than half of which were appeared in TOP journals, such as Remote Sensing of Environment, Journal of Geophysical Research, and Environmental Science & Technology. His publications have been cited more than 2500 times according to Google Scholar (H-index: 26), with the highest one of >350 times (ESI indexed highly cited paper). His research has been highlighted by a number of domestic and international media and agencies, such as the CCTV, NASA, NOAA, IOCCG, etc.



## 夏雨 XIA Yu

助理教授 香港大学博士。研究方向集中于利用新一代测序技术与生物信息学大数据分析相结合的手段研究环境微生物群落组成和协同作用关系对生物处理技术运行效率、致病菌的环境分布以及抗生素抗性基因在环境中的迁移转化，环境物质循环的驱动机理和生态效应的影响。已在The ISME Journal, Environmental Microbiology, Biotechnology for Biofuels, Environmental Science & Technology等重要期刊发表SCI论文20余篇。曾任美国微生物协会香港地区青年大使以及香港大学研究生协会常务秘书长。

Assistant Professor. Ph.D., University of Hong Kong. Her research focuses on utilizing new generation sequencing technology coupled with advanced bioinformatic big data mining to investigate the community structure and functionality of various microbiomes. The research areas she is currently working on mainly include: biological wastewater/waste sludge treatment; environmental dissemination of antibiotic resistance genes (ARGs), and the microbial effect in nature material cycles. Dr. XIA has published more than 20 high quality research papers in prestigious scientific journals in environmental microbiology and ecology fields like The ISME Journal, Environmental Microbiology, Biotechnology for Biofuels, Environmental Science & Technology, etc. Additionally, she has served as the Young Ambassador of Hong Kong region for American Society for Microbiology (ASM), and the General Secretary for the Postgraduate Student Association of the University of Hong Kong.

Faculty



## 王俊坚 WANG Junjian

助理教授 美国克莱姆森大学博士，多伦多大学环境核磁共振中心博士后。致力于开发并利用新型天然有机质与污染物分析方法，关注于全球变化与人类活动下植物-土壤-水体体系碳循环与环境质量变化机理。主持研究项目十余项，包括国自然优秀青年项目、广东省杰出青年项目等，获中国环境科学学会青年科学家奖（金奖）等奖项。在Nature Communications, New Phytologist, Environmental Science & Technology, Water

Research,《环境科学》等国内外期刊上发表论文68篇，其中一作或通讯43篇，现任Journal of Environmental Quality副编辑, Frontiers in Soil Science评审编辑, Chinese Chemical Letters青年编委,《农业资源与环境学报》编委，曾担任过美国自然科学基金、法国国家研究局等机构项目评审人和30多个国际期刊审稿人。

Assistant Professor. Ph.D., Clemson University. Prior to his current appointment, he was a postdoc at the Environmental NMR Centre at the University of Toronto. He is dedicated to develop and apply the cutting-edge and molecular-level analyses of natural organic matter and pollutants to study the critical impacts of global change and anthropogenic disturbance on the plant-soil-water system and environmental quality. He has actively participated in research projects funded by national agencies of China, United States, and Canada. He published almost 68 papers on top-tier journals including Nature Communications, New Phytologist, Environmental Science & Technology, and Water Research, as well as 1 ACS book chapter. He is serving as an associate editor of the Journal of Environmental Quality and on the editorial boards of the Frontier in Soil Science, Chinese Chemical Letters, and Journal of Agricultural Resources and Environment. He has also served as an international reviewer for National Science Foundation (US) and France National Research Agency (ANR) proposals and journal reviewer for more than 30 SCI journals.



## 朱雷 ZHU Lei

助理教授 哈佛大学博士、博士后，哈佛-史密松天体物理中心研究员。研究方向为大气化学，研究涉及卫星遥感、大气化学模式开发、数据同化等方面。在ES&T、GRL、ACP、ERL等国际刊物(SCIE)发表学术论文共30余篇，谷歌学术引用1400余次，H指数17。研究曾被美国航空航天局(NASA)评为亮点研究，被美国地球物理学会(AGU)官方采访报道，获得美国科学院院刊(PNAS)新闻特写重点报道。曾获美国气象协会(AMS)年度特别奖、美国NASA及内政部William T. Pecora团队奖、NASA团队成就奖、哈佛大学杰出教学认证等荣誉。OMI、OMPS、TEMPO、GEMS等多个卫星科学团队成员。

Assistant Professor. Ph.D. and Postdoc, Harvard University. Lei worked as a Research Scholar at Harvard-Smithsonian Center for Astrophysics before joining SUSTech. His research area is atmospheric chemistry with interests including remote sensing of trace gases, data assimilation, air quality, and atmosphere-land-ocean interactions. Lei has published more than 30 journal papers with the total citation of > 1400 and the H-index of 17. He is a science team member of several satellites such as OMI, OMPS, TEMPO, and GEMS. Lei was awarded American Meteorological Society Special Award for OMI (2020), William T. Pecora Team Award (NASA and DOI, 2018), NASA Group Achievement Award (2015), and Harvard University Certificate of Distinction in Teaching (2013).



## 叶斌 YE Bin

助理教授 哈尔滨工业大学博士，清华大学和美国劳伦斯伯克利国家实验室博士后。主要从事环境规划和能源经济等方面的研究工作，擅长将环境科学方法与经济管理科学方法相结合，研究全球和区域尺度的气候、能源和经济发展方面的问题；主持国家自然科学基金、中国博士后基金国际交流和面上项目、广东省自然科学基金以及深圳市多项竞争性科研项目。目前已经发表科研论文70余篇，其中50余篇被SCI或SSCI检索；以第一作者或通讯作者身份在能源与环境领域顶级期刊Renewable and Sustainable Energy Reviews发表论文3篇，Applied Energy发表论文3篇，3篇论文入选ESI高被引论文；以第一或通讯作者身份在国际公共管理政策类顶级期刊Climate Policy (SSCI) 发表论文2篇；长期担任10多种JCR 1-2 区期刊评审人，获得Applied Energy 2016年度Best Reviewer奖；2018年5月开始担任JCR 1区期刊Environmental Geochemistry and Health (IF 3.472) Associate Editor。

Assistant Professor. Ph.D., Harbin Institute of Technology. Prior to his current appointment, he was a postdoctoral fellow in Tsinghua university and Lawrence-Berkeley National Laboratory. His research interests include environmental management and energy economics, with emphasis on integrating environmental science with economics methods into climate, energy, and economic development related issues at global, regional, and city-dimensions. He has presided over the National Natural Science Foundation of China, China Postdoctoral Foundation on International Exchange and Regular Project, Guangdong Natural Science Foundation and a number of competitive research projects in Shenzhen. He has published more than 70 academic papers, among which more than 50 papers are indexed by SCI/SSCI journals. As the first or corresponding author, he published 3 papers in Renewable and Sustainable Energy Reviews, 3 papers in Applied Energy, 2 papers in Climate Policy, and he has 3 ESI highly cited papers. He also served as a guest editor for Environmental Geochemistry and Health since May 2018.

Faculty





**梁修雨 LIANG Xiuyu**

助理教授 南京大学博士。主要从事地下水资源与环境方向的研究工作，具体包括，饱和-非饱和和水流耦合模拟、地表-地下水交互作用、地下水流及溶质的时间尺度性、污染气体运移模拟等。发表科技论文40余篇，其中以第一/通讯作者身份在水资源领域顶级期刊Water Resources Research, Water Research等上发表SCI论文26篇。主持包括国家自然科学基金、科技部重大专项子课题、国家水专项子任务和省自然科学基金等5项。中国水利学会地下水科学与工程专业委员会委员。分别担任国际学术期刊Vadose Zone Journal (2020.1-2022.12) 和Stoch Environ Res Risk Assess (2019.4-) 副主编，并长期担任水资源领域10多个学术期刊的审稿人，并获得水文学国际知名期刊Journal of Hydrology 2016、2018年度杰出审稿人称号。

Assistant Professor. Ph.D., Nanjing University. His research interests include coupling unsaturated-saturated flow, interaction between the surface water and groundwater flow, temporal scaling of groundwater flow and solute transport in watersheds, and modeling of vapor transport in vadose zone. He published almost 40 scientific papers, and the most of the papers are published on top-tier SCI journals, including “Water Resources Research” and “Water Research”. He has been the PI/Co-PI of more than 10 funded projects. He is a committee member of Groundwater Science and Engineering Committee of Chinese Hydraulic Engineering Society. He is serving as associate editor for two hydrology and water resource journals “Vadose Zone Journal (2020.1-2022.12)” and “Stochastic Environmental Research and Risk Assessment (2019.4-)”.



**雷洋 LEI Yang**

助理教授 瓦赫宁根大学博士，欧盟玛丽居里学者。2021年2月加入南方科技大学，任助理教授，博士生导师。研究方向为废水处理与资源化。在环境领域主流期刊发表以第一作者发表论文14篇，其中8篇为ES&T、Water Research、ACS ES&T Water。谷歌学术引用800余次，H指数13，单篇引用近390次。曾获国家优秀自费留学生奖，Marcel Mulder Prize等奖励。

Assistant Professor. He was a Marine Sklodowska-Curie Fellow. He obtained PhD with Prof Cees Buisman from Wageningen University in 2019 on “electrochemical phosphorus removal and recovery”. Afterward, he worked on electrochemical P recovery at a large-scale in Wetsus as a post-doctoral researcher. In this period, he received the NWO Take-off Grant. In 2021, he joined SUSTech as an assistant professor. Currently, he is leading the Environmental Electrochemistry Laboratory at SUSTech. The mission of his lab is to initiate innovation in addressing the water-food-energy nexus challenge. His team works on energy-efficient wastewater treatment and resource recovery.



**姜丽光 JIANG Liguang**

助理教授 丹麦科技大学博士/博士后，现任助理教授（副研究员，博士生导师）。研究方向为遥感水文学，重点开展对地观测（Earth-Observation, EO）技术在水文和水资源领域的理论与应用研究，具体包括地表水体动态监测、卫星测高数据产品研发、河道地形观测与反演、流域水文模拟、河道水动力模拟等。在Remote Sensing of Environment, Journal of Hydrology, Geophysical Research Letters, Hydrology and Earth System Sciences等期刊上共发表论文20余篇，其中一作或通讯论文15篇。担任多个水文学和遥感领域国际顶级期刊审稿人。

Assistant Professor. He received his MSc degree from the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences in 2014, and PhD in Remote Sensing & Hydrology from the Technical University of Denmark in 2018. His research interests span both remote sensing and hydrological sciences. He has worked on hydrological dynamics of surface water bodies, e.g. lakes, reservoirs, and rivers in the context of climate change. His PhD research has centered on the potentials of radar altimetry for inland water monitoring and modeling. He has investigated the pros/cons of different altimetry missions, e.g. SARAL/AltiKa, CryoSat-2, Sentinel-3 over mountainous lakes and rivers. In addition, he has made some contributions to hydrodynamic modeling using distributed altimetry-derived Water Surface Elevation data, broadening the range of applications of satellite altimetry. Liguang has published more than 20 research articles on SCI-indexed journals, e.g. Remote Sensing of Environment, Journal of Hydrology, Geophysical Research Letters, Journal of Geophysical Research – Atmospheres, etc.



**沈惠中 SHEN Huizhong**

助理教授 先后在北京大学获得学士及博士学位，在美国佐治亚理工学院从事博士后研究。主要研究方向为区域及全球大气污染物排放清单编制、空气质量模拟、人群暴露及健康评估。代表性成果包括：1) 系统评估了大气多环芳烃的全球排放、传输及健康风险。2) 首次揭示了中国人口迁移对生活能源结构转型、空气质量及人群健康的有利影响。以第一/通讯作者在Science Advances、Nature Human Behaviour、One Earth、Environmental Science & Technology等国际知名期刊上发表论文17篇，ESI高被引论文3篇，单篇最高引用440次，出版英文专著1部（出版商Springer）。合计发表SCI论文100余篇，Web of Science总引用5000次，H指数42。

Assistant Professor. He received his B.S. degree and Ph.D. degree from Peking University. Before he joined SUSTech, he was a post-doctoral researcher at Georgia Institute of Technology. His research interests include development of regional and global emission inventories of air pollutants, air quality modeling, integrated assessment of population exposure & health and their driving forces. He has published more than 100 papers in peer-reviewed journals including Nature Energy, Science Advances, PNAS, Nature Communications, Nature Human Behaviour, One Earth, Environmental Science & Technology, Environmental International, etc., with the total citation of 5000 and h-index of 42.



**叶建淮 YE Jianhuai**

助理教授 加拿大多伦多大学博士，2017-2021年于哈佛大学工程与应用科学学院从事大气化学博士后研究工作。2021年6月加入南方科技大学，现任环境科学与工程学院助理教授（副研究员，博士生导师）。主要研究方向包括大气污染物化学传感观测、污染物形成机制、污染物理化性质表征及其健康效应等。在PNAS、Nat Commun、Environ Sci Tech、Atmos Chem Phys、Geophys Res Lett等国际知名期刊共发表论文40余篇。曾获评Camille & Henry Dreyfus Postdoctoral Fellow (2017)、ACCESS XV Participant (2019)、NSERC Postdoctoral

Fellow (2020, Top 1 in Earth Sciences)等。担任Environ Sci Tech Lett、Atmos Chem Phys、Sci Total Environ、Environ Pollut等十余国际期刊审稿人。担任2022 Gordon Research Conference on Biogenic Hydrocarbons and the Atmosphere青年会议主席。

Assistant Professor. Dr. Jianhuai Ye obtained his PhD degree from the University of Toronto. He worked as a Postdoctoral Fellow at Harvard University during 2017-2021. Dr. Ye joined SUSTech as an Assistant Professor in June 2021. His main research interests include air pollutant chemical sensing, air pollution formation mechanisms, and physicochemical characteristics and health effects of air pollutants. Dr. Ye has published more than 40 peer-reviewed articles in internationally renowned journals such as PNAS, Nat Commun, Environ Sci Tech, Atmos Chem Phys, and Geophys Res Lett. He was awarded with the Camille & Henry Dreyfus Postdoctoral Fellow (2017), the Fifteenth Atmospheric Chemistry Colloquium for Emerging Senior Scientists (ACCESS XV, 2019), and NSERC Postdoctoral Fellow (2020, Top 1 in Earth Sciences). Dr. Ye serves as reviewer for over 10 top-tier environmental journals including Environ Sci Tech Lett, Atmos Chem Phys, Sci Total Environ, and Environ Pollut. He is the Co-Chair of the 2022 Gordon Research Seminar on Biogenic Hydrocarbons and the Atmosphere.



**王辰 WANG Chen**

助理教授 加拿大多伦多大学环境化学博士。2021年6月加入南方科技大学环境科学与工程学院，任助理教授（副研究员，博士生导师）。研究方向包括室内空气污染、化学过程及二次污染、大气化学多相反应、大气污染物室内外关联及影响等。通过实验室实验及外场实地观测等方法研究污染物的行为、多相分配过程、化学转化和室内外差异等。研究成果共发表SCI论文30余篇，包含Science Advances, Environmental Science & Technology等国际一流期刊，合著英文专著1部，Google scholar引用1200余次。2019年当选麻省理工大学土木与环境工程学术新星（MIT CEE Rising Star）；2017年入选大气化学学术研讨会新兴科学家（ACCESS XIV）。

Assistant Professor. Dr. Chen Wang received her PhD in Environment Chemistry at University of Toronto. Dr. Wang joined School of Environmental Science and Engineering at SUSTech in June 2021, as an Assistant Professor. Dr. Wang's research interests include indoor air quality, atmospheric multiphase reactive processes, formation of secondary aerosols and gaseous products, and the association between indoor and outdoor air pollution, etc. With both laboratory studies and field measurements, her research focuses on the behavior of pollutants, multiphase partitioning, chemical transformation, and the differences between indoor and outdoor atmospheric chemistry. She has published over 30 papers in top journals in environmental and atmospheric science, including Science Advances, Environmental Science & Technology, etc., and co-authored a book chapter, with a total citation count of over 1200. She was selected as MIT Civil and Environmental Engineering Rising Star in 2019 and as Atmospheric Chemistry Colloquium for Emerging Senior Scientists (ACCESS XIV) in 2017.



张斌田 ZHANG Bintian

助理教授 中科院生态中心博士。主要研究方向为基于生物传感器的环境健康效应研究、污染物的快速分析检测技术及仪器开发等。主持包括国家自然科学基金在内的科研项目多项。在PNAS、JACS、ACS Nano、Nano Letters、AC等顶级学术期刊发表论文二十余篇。获得授权国际专利(PCT)、美国专利等5项,实现专利技术转让2项。曾获“亚利桑那州立大学技术转让优秀奖”、“ACS 特殊贡献奖”等奖励。研究成果被美国科学促进会(AAAS)网站、ScienceDaily、PHYS.ORG、PhysicsWorld等十多家国际主流科技媒体报道。

Assistant Professor. Ph.D., Chinese Academy of Sciences. His research focuses on the development of biosensors and their applications in environmental monitoring and molecular toxicology study. He holds 5 patents and has published more than 20 peer-reviewed papers, including first-author papers in PNAS, JACS, ACS Nano, Nano Lett, etc. His studies on protein conductance were reported by over 10 international media such as AAAS and generated significant academic impact.



梁凤超 LIANG Fengchao

助理教授(双聘) 北京大学公共卫生学院博士。南方科技大学公共卫生及应急管理學院及环境科学与工程学院双聘助理教授。主要从事大气污染时空暴露评价、大气污染相关健康风险研究,将卫星遥感、人工智能技术应用于环境健康领域,对环境污染暴露及其健康效应进行深入探讨。在国内外期刊上发表研究论文30余篇,第一/共同第一作者文章发表于PNAS、BMJ、JACC等国际权威期刊。作为主要研究成员,参与国家重点研发计划大气污染成因与控制技术研究专项、国家重点研发计划政府间国际科技创新合作重点专项等项目研究。

Assistant Professor. Ph.D., Peking University. Her research focuses on applying high resolution satellite aerosol remote sensing data in monitoring and predicting ground level air pollutants and presenting quantitative relationships between air pollution exposure and health risk. She has published 30+ papers so far in high-ranked journals such as PNAS, the BMJ, and JACC.

教学系列 TEACHING FACULTY



史江红 SHI Jianghong

教学教授 清华大学环境工程本科,东京农工大学博士。中国环境科学学会化学品环境风险防控专业委员会常务委员。从事雌激素塑化剂阻燃剂等内分泌干扰物环境行为及风险评估管控技术体系研发。主持土专项课题、国自然、横向项目40余项。发表论文61篇(单篇最高被引382次),中国及日本发明专利授权12项,合作教材2部,软件著作权1项。获山西省科学技术奖三等奖(排名第一)。承担《环境影响评价》、《污染物环境行为与风险评估》等5门课程教学。

Teaching professor. Ph.D., Tokyo University of Agriculture and Technology. B.S., Tsinghua University. Committee on chemical environmental risk prevention and Control Committee of the Chinese society of Environmental Sciences. Her research focuses on the environmental behavior, risk assessment and control technology system of endocrine disruptors. She has presided over 40 research projects including the National key research and development program, NSFCs and enterprise cooperation projects. She published 61 papers (382 for single highest citation). She has been granted 12 invention patents in China and Japan, published 2 textbooks and 1 software copyright. She won the third prize of Shanxi Science and Technology Award (ranking first). She undertakes 5 teaching courses including Environmental impact assessment, Environmental behavior and risk assessment of pollutants etc.



王扬 WANG Yang

教学副教授 滑铁卢大学博士,城市规划和环境环境设计方向,美国规划师协会会员。有丰富的城市规划项目经验和教学经验,曾任职与加拿大卡市规划部,曾任教于北京大学工学院。

Teaching Associate Professor. Ph.D., University of Waterloo. Member of APA. She has rich experience in both project implementing and teaching in urban planning and environmental design areas as she worked for the City Calgary, Canada and taught at the Peking University, China.

研究系列 RESEARCH FACULTY



张幼宽 ZHANG Youkuan

研究教授 美国亚利桑那大学水文学博士、美国地质学会会士(GSA Fellow)、意大利Bologna 科学院院士。已发表论文 100 多篇,内容涉及非均质介质中地下水污染物弥散理论、河流径流和基流以及地下水水位变化的尺度效应、土地利用和地表覆盖对流域水循环的影响、土壤与地下水污染修复、基岩裂隙水分布及富集规律与合理开发利用等。主持30余项美国和中国政府资助的科研项目,曾担任国家重大水专项淮河污染治理项目负责人以及多个国际专业期刊副主编。

Research professor. Ph.D., University of Arizona, GSA Fellow, member of Academy of Sciences of Bologna, Italy. He has published more than 100 papers in the areas of dispersion theories of heterogeneous media, temporal variations and scaling of river runoff and groundwater levels, effects of LULCC on basin water cycle, soil and groundwater remediation, and groundwater in fractured rocks. He conducted more than 30 research projects founded by the U.S. and China governments and was principal investigator for the Chinese National Key Project, “Water Pollution Control in the Huai River Basin”. He served as Associate Editor for several important international journals in water research, including Stochastic Environmental Research, Groundwater, and Vadose Zone Journal.



易树平 YI Shuping

研究教授 西班牙Universidad de A Coruna博士,广东省土壤和地下水污染防控与修复重点实验室副主任。主要从事土壤与地下水污染机理、迁移模拟、溯源预警、修复机理以及放射性废物的安全处置领域的研究。发表论文42篇,专利29项,编制国家标准1部。获得荣誉包括第十四届青年地质科技奖-银锤奖(2014),最美生态环境科技工作者(2020)等,以及环境保护科学技术奖二等奖(2020,排名第二),全国优秀工程咨询成果奖一等奖,(2015,排名第一)等科技奖项。

Research Professor. Ph.D., Universidad de A Coruna, Spain. Dr. Yi serves as the deputy director of Guangdong Key Laboratory of Soil and Groundwater Pollution Control. His research interests include the soil and groundwater contamination mechanisms, solute transport modelling, source tracing and for-warning systems, remediation as well as the safe disposal of radiative wastes. Dr. Yi has published 42 journal articles, 1 Chinese national standard, and 29 patents. He was awarded the “Silver Hammer Award”(2014) and the “Most beautiful ecological environment science and technology researcher” (2020). Dr. Yi has also obtained the Award for excellent engineering consultation (the first prize, 2015) and the Award for Environmental Protection Science and technology (the second prize, 2020).



田展 TIAN Zhan

研究教授 中科院地理科学与资源研究所理学博士,国际应用系统分析学会博士后,科技部重点研发计划项目负责人。主要从事气候变化对中国农业生态系统和城市洪涝影响、适应和决策研究。发表论文65篇,合作专著5部,曾担任第二次国家气候变化评估报告和适应气候变化国家战略研究报告的编写专家,所提出的建议写入《国家城市适应气候变化行动方案》。获第八届中国技术市场金桥奖,上海市科学技术进步三等奖(排名3),ICTP Associate Fellow、START Fellow、上海市“十一五”节能减排先进个人,上海市市级机关青年岗位能手,上海市优秀“青年突击队”队长等个人称号。

Research Professor. PhD., Chinese Academy of Sciences. He had more than fifteen years working experiences in climate change impacts analysis, and adaptations and mitigations policy designs and implementation. After got PhD in Chinese Academy of Sciences, he was awarded the prestigious Global Change Visiting Scientist Fellowship of the START International, and work as postdoc at the International Institute for Applied Systems Analysis (IIASA) in Austria, a top rank international institution in climate change research. His current research interests focus on assessing the adaptation and mitigation measure and techniques of climate change on China’s agriculture ecosystem and city flooding.





宋兰 SONG Lan

研究副教授 深圳可持续发展研究院科研副院长, 荷兰莱顿大学博士, 玛丽居里学者, 丹麦政府全额奖学金获得者。曾任爱思唯尔荷兰总部环境科学与工程SCI期刊出版人。主要从事生态文明和城市可持续发展、新型污染物的环境风险评估和管理等研究。在国际高水平期刊发表论文三十余篇。

Research Associate Professor | Associate Dean of Shenzhen Institute of Sustainable Development, obtained Ph.D. from Leiden University, Marie Curie Scholar, Recipient of Danish Government Full Scholarship. Former publisher at the headquarter of Elsevier in the Netherlands, fully responsible for a dozen SCI journals in the area of environmental science and engineering. Main research areas include ecological civilization and urban sustainable development, environmental risk assessment and management of emerging pollutants. Currently, she has published more than 30 aticles in international journals.



李炜怡 LI Wei yi

研究副教授 美国辛辛那提大学博士, 新加坡膜技术中心博士后。主要研究方向为膜分离技术, 致力于应用先进表征手段开发环境友好型分离膜和膜分离过程。主持或共同主持包括国家自然科学基金在内的一系列科研项目, 成果发表于水处理、环境工程等领域的国际顶级期刊。

Research Associate Professor, Ph.D. at the University of Cincinnati (USA) and Research Fellow at the Singapore Membrane Technology Centre. His research focuses on membrane technology and is aimed at applying advanced characterization techniques to the development of environmentally friendly membranes and membrane-based processes. He is the PI or co-PI of several funded research projects (including NSFC programs) and has published a series of academic articles in high impact journals in the fields of water treatment, environmental engineering, and others.



李三百 LI Sanbai

研究副教授 北京大学博士、加州大学(欧文) 博士后。研究领域包括岩体中气/液驱动的裂缝扩展、清洁能源开采、二氧化碳地质封存等。发表SCI论文十余篇, 大部分以第一作者身份发表于SPEJ, WRR, JGR-Solid Earth, GRL等顶尖学术期刊。目前担任SPEJ的副主编(编委)。

Research Associate Professor. Ph.D., Peking University. He was a Postdoctoral Research Fellow at the University of California Irvine. His expertise centers around gas/liquid fluid driven fracture propagation, efficient development of unconventional resources (geothermal energy, tight/shale oil/gas, gas hydrate, coal-bed methane, etc.), and geological sequestration of carbon dioxide. He has published 10+ peer-review, high-impact papers in top journals, including SPE Journal, Water Resources Research, Journal of Geophysical Research: Solid Earth and Geophysical Research Letters. He currently serves as an associate editor of SPE Journal.



姜继平 JIANG Jiping

研究副教授 哈尔滨工业大学博士、新南威尔士大学公派联合培养。研究领域为 面向城市水环境监管的水信息学, 包括先进模型、算法、监测、软硬件开发与系统集成; 水环境非线性系统分析与数据密集型知识发现。国际水协IWA中青委委员、中国水协青年委员会委员、智慧水务专委会委员。

Research Associate Professor. Ph.D., Harbin Institute of Technology. He studied overseas at University of New South Wales, Australia. His research interests include nonlinear system analysis on water environment and data centric knowledge innovation, hydro-informatics for urban water environmental management with advanced environmental models algorithms, software and hardware development, and DSS integration. Committee member of IWA-YWP China Chapter.



刘鑫 LIU Xin

研究副教授 南洋理工大学博士, 新加坡膜技术中心博士后。研究方向为膜分离技术, 具体内容包 括: 分离膜的制备与改性、基于先进技术的膜过程表征、纳米材料在膜制备中的应用和高效水处理膜技术的开发。已在国际权威期刊上发表论文近30篇, 引用数820余次, h指数15, 并申请多项专利。

Research Associate Professor. PhD in Environmental Engineering from Nanyang Technological University (Singapore). Dr. Liu's research focuses on novel membrane fabrication, membrane fouling and characterization with advanced optical techniques, applications of nanomaterials in membrane fabrication, and membrane separation processes for desalination and water reuse. His work has yielded ~30 peer-reviewed journal papers (citation: ~820, h-index: 15).



田勇 TIAN Yong

研究副教授 华中科技大学博士、北京大学博士后。研究领域包括生态水文、水动力与水环境数值模拟、GIS/RS与水环境科学的交叉应用等。主持国家自然科学基金项目3项、科技部重点研发计划子课题1项。发表SCI论文40余篇, 获得软件著作权7项。论文主要发表于Water Resources Research、Environmental Modelling & Software等专业领域顶尖学术期刊。

Research Associate Professor. Ph.D., Huazhong University of Science and Technology. He worked as a postdoctoral research fellow in the Institute of Water Sciences at Peking University. His research interests include ecohydrology, numerical simulation of hydrodynamics and water environment, and GIS/RS applications in hydrology and water resources. He has obtained funding for over 6 research projects, including NSFC, the National Key Research and Development Program of China, etc. Dr. Tian has published more than 40 SCI journal articles, including Water Resources Research and Environmental Modelling & Software. He has also applied 7 software copyrights.



王学静 WANG Xuejing

研究副教授 中国地质大学(北京)博士、南方科技大学校长卓越博士后。研究领域包括海岸带地下水环境、海底地下水排泄等。主持和参与国家自然科学基金、973计划课题及深圳市基础研究项目10余项, 在国际知名期刊WRR、GCA等上发表SCI论文30余篇, 授权专利1项。受邀作为十余个SCI期刊审稿人。

Research Associate Professor. Ph.D., China University of Geosciences (Beijing). He received the SUSTech Presidential Postdoctoral Fellowship in 2016. His major research interests include submarine groundwater discharge (SGD) and the environment of coastal groundwater flow and the associated chemical transport. He has led and participated more than 10 national or municipal research projects, including Natural Science Foundation of China (NSFC), 973 Program and Natural Science Foundation of Shenzhen, etc. He has published over 30 academic papers in high impact international journals like Water Resour. Res., Geochim. Cosmochim. Acta, etc, and has received one invention patents. He has served as reviewer for 10 SCI journals.



韩峰 HAN Feng

研究副教授 北京大学博士。主要从事流域尺度生态、水文、水质过程数值模拟方法研究, 包括开发新的流域模型、发展高效的模型-数据融合方法(如贝叶斯分析、数据同化、优化算法等)和对国内外流域的应用研究。主持和参与国家自然科学基金等科研项目10余项, 在水文、水资源、环境科学领域发表SCI论文30余篇。

Research Associate Professor. Ph.D. His research mainly focuses on the numerical simulations of ecological, hydrological and water quality processes at the watershed scale, including developing new watershed models, designing new model-data fusion methods (such as Bayesian analysis, data assimilation and optimization algorithm) and applying the new models or methods to foreign and domestic basins. Dr. Han has participated in more than 10 research projects. He has published more than 30 SCI joral papers in the fields of hydrology, water resources and environmental science.





**颜枫 YAN Feng**

研究副教授 清华大学博士。研究方向为固体废物资源化及CO<sub>2</sub>捕集利用, 包括工业固体废物高值资源化技术、生物质废物能源化利用技术、CO<sub>2</sub>捕集和利用技术、生活垃圾焚烧污染控制技术; 已在能源环境领域顶级期刊上共发表SCI论文55篇、总引用次数1700+, 申请中国发明专利21项、国际PCT专利3项。

Research Associate Professor, Ph.D. of Tsinghua University. He focus on the high-value utilization of solid-waste and the CO<sub>2</sub> capture & utilization, including Recycling and reuse of industrial solidwaste, Biomass waste to energy, CO<sub>2</sub> capture & utilization, and Pollution control of waste incineration. He has published 55 journal papers in the field of environment and energy with over 1700 citations, and has applied for 21 Chinese invention patents and 3 international PCT patents.



**陈勋文 CHEN Xunwen**

研究助理教授 香港科技大学博士、博士后。研究领域:环境胁迫下植物-微生物互作机理与效应、人工生态系统功能与服务构建、生物因素对土壤物理稳定性(如边坡)的影响。主持国家自然科学基金面上项目、广东省教育厅项目。于国内外主流期刊发表论文32篇, 担任 Environ. Geochem. Health (JCR Q1) 副主编。

Research Assistant Professor. Ph.D., Hong Kong University of Science and Technology. Dr. Chen's research interests include 1) mechanisms of plant-microbe interactions under stresses, 2) ecological restoration of degraded lands (e.g., landfills and filled slopes) in urbanized areas, and 3) effects of biotic factors on soil physical stability (e.g., slope failure problem). Dr. Chen is the principal investigator of projects funded by the National Natural Science Foundation of China (NSFC) and the Education Department of Guangdong Province, China. He has published 32 journal articles and serves as the Associate Editor of Environmental Geochemistry and Health (JCR Q1).



**原晓非 YUAN Xiaofei**

研究助理教授 日本东京大学博士, 日本筑波大学博士后, 研究领域属于交叉学科范畴, 包括(1)基于微流控芯片的单个细胞分析以及芯片的设计与制备;(2)基于微流控芯片技术和纳米材料的生物传感器研发;(3)环境水体中新型污染物和致病菌的检测等。获得国外授权专利两项, 发表论文总引用数超过450次。

Research Assistant Professor. She got the Ph.D. from University of Tokyo and worked as a postdoctoral researcher in the University of Tsukuba, Japan. Her scientific interests include single-cell analysis based on microfluidics, development of biosensors based on microfluidics and/or functional microparticles, and detection of aquatic environmental contaminants and microbes. Currently, she has got two abroad-authorized patents and over 450 times citation for her papers.



**李响 LI Xiang**

研究助理教授 副研究员, 美国西弗吉尼亚大学博士, 美国国家环境保护局及圣母大学博士后。研究领域包括微生物示踪技术的研发与应用、探究环境微生物及相关抗生素抗性基因转移以及宏基因组学等。在Water Research, ES&T及Chemical Engineering Journal等杂志发表SCI论文17篇(一作10篇)。国自然及广东省面上项目获得者。

Research Assistant Professor, Dr. Xiang Li obtained his Ph.D. from West Virginia University, and worked as a postdoctoral fellow and associate at USEPA and the University of Notre Dame, respectively. His main research interest includes developing and applying microbial source tracking methods, studying the environmental microorganisms and associated antibiotic resistance gene transfer, and metagenomics, etc. Dr. Xiang Li has published his research in prestigious journals, such as Water Research, ES&T, and Chemical Engineering Journal, and 10 out of his 17 SCI articles are first-authored. Dr. Xiang Li's funders include NSFC and NSF of Guangdong Province (general program).



**Narendra Singh**

研究助理教授 清华大学博士。研究领域包括废弃电子产品的回收、生命周期分析、以及从废水中回收重金属的发展技术。在Environmental Science & Technology、Environment International、Journal of Hazardous Materials、Journal of Cleaner Production、Waste Management等环境与生态学领域期刊发表多篇SCI文章。2020年至今, 他还担任“Journal of Health and Environmental Research”和“Senhri Journal of Multidisciplinary Studies”期刊的编委会成员。

Research Assistant Professor. Ph.D. Tsinghua University. His research work focuses on the recycling of waste electronics, life cycle analysis, and developing techniques for the recovery of precious and critical metals from waste streams. He has published numerous SCI papers in the field of environment and ecology journals including Environmental Science & Technology, Environment International, Journal of Hazardous Materials, Journal of Cleaner Production, and Waste Management. He also served as an editorial board member of the “Journal of Health and Environmental Research” and “Senhri Journal of Multidisciplinary Studies' from 2020-Present.



**蔡志扬 CHOI Chi-Yeung**

研究助理教授 新西兰梅西大学博士, 毕业后曾在澳大利亚昆士兰大学和迪肯大学担任博士后以及副研究员。研究兴趣包括动物生态学、保护生物学和湿地生态学, 目前以候鸟为主要研究对象, 通过高科技追踪与遥感, 结合野外调查和采样的手段去探究候鸟如何应对急剧的环境变化。

Research Assistant Professor. Ph.D., Massey University in New Zealand. He worked as a postdoctoral research fellow at the University of Queensland and an associate research fellow at the Deakin University prior taking up his current position. He is an applied ecologist with expertise in animal ecology, conservation biology and wetland ecology. Current study systems include the ecology of migratory birds, using the latest technology in wildlife tracking and remote sensing to investigate how migratory birds respond to environmental changes.



**龙鑫 LONG Xin**

研究助理教授 中国科学院大学博士、博士后。研究领域包括人为活动对空气质量的影响、地表/生态-大气化学相互作用、臭氧-植被相互影响、微塑料大气传输等。主持国家自然科学基金青年基金、深圳市科创委基础研究面上项目等竞争性项目; 发表科研论文30余篇。

Research Assistant Professor. Ph.D., University of Chinese Academy of Sciences. He is interested in numerical simulation in land use /change & atmospheric chemistry coupling, ozone & vegetation coupling, the effects of anthropogenic activities on haze pollution, and atmospheric transport of microplastics.



**齐伟 QI Wei**

研究助理教授 大连理工大学与英国埃克塞特大学联合培养博士。主要从事不同尺度极端水文事件变化、影响与适应研究, 应用数学概率统计理论及具有物理机制的陆面生态水文过程模型, 结合实测、模拟和遥感大数据研究分析极端水文事件风险的变化机理及其与社会系统的关系。

Research Assistant Professor. Ph.D., Dalian University of Technology and University of Exeter. Dr. Qi's research focuses on global and regional extreme hydro-climatic events, their socioeconomic impacts and human adaptation, based on novel mathematical approaches, physically-based global biosphere-land surface-hydrological models, remote sensing, reanalysis and modelled datasets.



**索红日 SUO Hongri**

研究助理教授 吉林大学博士, 毕业后在英国牛津大学化学学院从事博士后研究工作, 主要负责SCG-COE 技术研发中心以及Wolfson催化中心新能源项目。研究领域长期专注于纳米材料设计、合成及应用; 目前研究方向为环境功能材料的设计与合成以及利采用人工智能(AI)技术辅助纳米催化材料的筛选与优化。

Research Assistant Professor. Ph.D., JiLin University. She worked as a Postdoctoral Research Associate at the Chemistry department of University of Oxford ( PROJECT: SCG-COE & Wolfson Catalysis). In the meanwhile she is a member of Holywell Manor at Balliol College of Oxford. Her research focuses on the design and synthesis of nanol materials for catalyst and absorption. Now, she is working on catalysis materials synthesis for waste water /organic pollution degradation, and Data-Driven, Machine Learning approach for materials design and optimization.



**Michele Lancia**

研究助理教授 博士期间就读意大利卡西诺大学。于2017-2019年间, 在南方科技大学进行博士后研究。专长领域为地质学, 以及地质工程学当中的地下水动态, 城市地下水, 野外调查, 地貌, 构造以及地热能方面的研究。

Research Assistant Professor. Ph.D., University of Cassino and Southern Lazio. He worked as postdoctoral research fellow in SUSTech during the period 2017-2019. He is a Geologist and Geo-engineer with skills and expertise in: Groundwater Dynamics, Urban Hydrogeology, Field Investigations, Geomorphology, Active Tectonics and Geothermal Energy.



**郭芷琳 GUO Zhilin**

研究助理教授 美国亚利桑那大学博士, 加州大学戴维斯分校博士后。主要研究方向有 (1) 地下水流及污染物运移数值模拟; (2) 污染场地修复模拟研究; (3) 流域尺度污染物迁移的升尺度研究; (4) 地下水污染风险研究。

Research Assistant Professor. Ph.D., University of Arizona. Postdoc, University of California-Davis. Research interest (1) Numerical modeling on groundwater flow and contaminant transport; (2) Contamination site remediation modeling; (3) Upscaling study on regional-scale contaminant transport process; (4) Groundwater risks under changing environment.



**冒甘泉 MAO Ganquan**

研究助理教授 德国奥格斯堡大学博士、南方科技大学博士后、研究领域包括大尺度水文模型开发与应用, 水资源短缺评估以及基于虚拟水理论的极端水文事件风险适应等, 开发了大尺度分布式水文模型WAYS, 已发表学术论文27篇, 合作出版专著1部, 取得软件著作权2份, 担任IPCC第六次评估报告贡献作者。

Research assistant professor, Ph.D. from University of Augsburg, Germany, postdoctoral from Southern University of Science and Technology, research areas include large-scale hydrological model development and application, water shortage assessment and extreme hydrological event risk adaptation based on virtual water theory, etc., He has developed a large-scale distributed hydrological model WAYS, he has published 27 academic papers, published 1 monograph, obtained 2 software copyrights, and served as the contributing author of the sixth IPCC assessment report.



**贲玉婕 BEN Yujie**

研究助理教授 北京大学地理学(环境地理学)专业博士, 南方科技大学博士后。研究领域包括环境中痕量污染物的分析检测, 环境污染的人群暴露对肠道菌群的影响, 及环境污染的人群健康风险评价。学术论文17篇, 发表在包括Water Res., Environ. Sci. Technol. 和 Environ. Pollut. 等在内的多个国际著名权威期刊上。

Research Assistant Professor. PhD of Environmental Geography from Peking University, postdoctoral fellow at Southern University of Science and Technology. Research areas include analysis of trace pollutants in the environment, impact of human exposure to environmental pollution on intestinal flora, and human health risk assessment of environmental pollution. Published 17 academic papers in many internationally renowned authoritative journals including Water Res., Environ. Sci. Technol. and Environ. Pollut.



**王超 WANG Chao**

研究助理教授 香港科技大学博士。主要研究兴趣包括环境中新兴污染物的人体健康与生态风险评估、高级催化氧化技术对有机污染物的降解和病原微生物的灭活、污染场地土壤和地下水风险评估、基于环境大数据和人工智能技术对环境问题的解决等。

Research Assistant Professor. Ph.D., The Hong Kong University of Science and Technology. Dr Wang's research focuses on assessment on health and ecological risk of emerging contaminants, degradation of organic pollutants and inactivation of pathogens by advanced oxidation process, risk assessment of contaminated soil and groundwater, and solution of environmental problems based on bigdata and IA technologies.



**肖凯 XIAO Kai**

研究助理教授 中国地质大学(北京)与美国南卡罗来纳大学联合培养博士, 南方科技大学校长卓越博士后。研究领域包括海岸带生态系统地下水文过程、“蓝碳”循环、底栖生物扰动环境效应等。主持国家自然科学基金2项, 已发表国际SCI论文30余篇, 并担任L&O, WRR, JOH, EP等20余个国际知名SCI期刊的通讯审稿人。

Research Assistant Professor. Ph.D., China University of Geosciences (Beijing) and University of South Carolina. He received the SUSTech Presidential Postdoctoral Fellowship in 2020. Dr. Xiao's research focuses on subsurface hydrological processes of coastal ecosystems, blue carbon cycle, benthic bioturbation and its environmental effects. He has led two National Science Foundation of China (NSFC) and published over 30 peer-review SCI papers. He is severing as an independent reviewer for more than 20 international SCI journals, including Limnology and Oceanography, Water Resources Research, Journal of Hydrology, Environmental Pollution, etc.



**尹晓光 YIN Xiaoguang**

研究助理教授 荷兰乌特勒支大学博士, 清华大学博士后。研究方向为多物理化学过程的多尺度建模模拟及优化, 包括 (1) 锂电池生产及运行中多孔电极物理过程研究; (2) 锂金属电池沉积及枝晶抑制策略研究 (3) 机器学习应用于多物理过程; (4) 多相渗流直接模拟和孔隙网络模型开发。

Research Assistant Professor. Ph.D., Utrecht University, postdoc Tsinghua University. His research focuses on multiscale modelling, simulation and optimization of multiphysicochemical processes including: (1) Multiphysics in porous electrode of Li-ion batteries during manufacture and operation; (2) Li deposition mechanism and Li dendrite mitigation in Li metal batteries; (3) Application of machine learning models to multiphysics; (4) Modelling and simulation of multiphase flow in porous media (direct simulation and pore-network modelling).





### 段艳华 DUAN Yanhua

研究助理教授 中国地质大学(武汉) 博士。博士期间获国家留学基金委资助, 赴斯坦福大学进行博士联合培养。主要研究领域为地下水污染与防治, 通过野外调查、动态监测与室内模拟实验相结合的方法, 揭示原生劣质地下水成因及原生污染物在非均质含水层中的迁移转化规律。

Research Assistant Professor. Ph.D., China University of Geosciences (Wuhan). She studied at Stanford University during 2014 to 2015 as a visiting graduate student and researcher. Her research focus on groundwater contamination, especially on genesis of native poor-quality groundwater and migration/transformation of contaminants in heterogeneous aquifers.



### 陈柯伟 CHEN Kewei

研究助理教授 美国德州农工大学博士, 西北太平洋国家实验室博士后。研究领域包括地表水-地下水交互对水-热-生物地球化学耦合过程的影响, 河流温室气体排放模拟预测以及非均质地层中非菲克溶质运移过程。

Research assistant professor. I obtained my Ph.D. degree from Texas A&M University and then moved to Pacific Northwest National Laboratory for postdoc study. My current research focuses on the impacts of surface water-groundwater interaction on the ecohydrological system, modeling and prediction of greenhouse gas emissions from rivers, and non-Fickian transport in heterogeneous subsurface.



### 徐鹏 XU Peng

研究助理教授 北京大学与美国伊利诺伊大学香槟校区联合培养博士、南方科技大学校长卓越博士后、研究领域包括农业碳氮循环与全球变化、流域农业和城市非点源污染控制等相关领域研究。近年来在包括Geophysical Research Letters, Atmospheric Chemistry and Physics, Agricultural and Forest Meteorology, Journal of Cleaner Production等环境领域顶级期刊发表论文23篇, 出版著作2部。

Research Assistant Professor. Ph.D., Peking University and University of Illinois at Urbana-Champaign. He was a postdoctoral researcher of SUSTech during 2018-2020, and received the SUSTech Presidential Postdoctoral Fellowship in 2019. His research mainly focuses on the fields of agricultural carbon and nitrogen cycling, global environmental change and the simulation and optimization for watershed's agricultural and urban non-point source pollution control. Dr. Xu has published 23 peer-reviewed papers on various journals, including Geophysical Research Letters, Atmospheric Chemistry and Physics, Agricultural and Forest Meteorology, Journal of Cleaner Production, and 2 professional books.



### 赵俊良 ZHAO Junliang

研究助理教授 北京大学力学(能源与资源工程)专业博士。曾在北京大学工学院担任助理研究员。所从事研究主要围绕非常规油气的开发。研究兴趣主要包括: (1) 地质材料的多尺度力学表征, (2) 基于复合材料细观力学的升尺度模型构建, (3) 数字岩心技术与应用。

Research Assistant Professor. Ph.D. in Mechanics (Energy and Resources Engineering) at Peking University. He was a Research Associate of College of Engineering at Peking University. His research focuses on the development of unconventional oil and gas, including (1) Multiscale mechanical characterization of geological materials, (2) Micromechanics of composite material, and (3) Digital rock methods and application.



### 王凯 WANG Kai

研究助理教授 加拿大阿尔伯塔大学水资源工程学博士 南方科技大学环境科学与工程学院博士后。主要研究领域包括复杂水资源系统模拟与水资源综合管理。开发了多个基于系统动力学的水资源模拟模型, 应用于干旱管理与决策支持、水资源规划与政策分析、以及资源纽带关系量化与权衡。

Research Assistant Professor, Ph.D. of the University of Alberta, Canada, Postdoctoral Researcher of SUSTech. His research focuses on complex water resources system modelling and Integrated Water Resources Management (IWRM). Most of his work develops water resources simulation models using system dynamics and applies them in drought management and decision making, water resources planning and policy analysis, and quantification of resource nexus and trade-offs.



### 范林峰 FAN Linfeng

研究助理教授 瑞士苏黎世联邦理工学院博士。主要研究方向包括 (1) 流域及全球尺度降雨型滑坡诱发机理及其生态环境效应; (2) 高寒区气候变化-冻土退化-水文响应-地质灾害-碳排放的灾害链效应。研究成果发表于GRL, JGR, WRR, ERL等国际一流学术期刊。

Research Assistant Professor. Ph.D., ETH Zurich. His research interests include: (1) Hydromechanical triggering mechanisms of rainfall-induced landslides and associated environmental impacts at catchment to global scales; (2) Chain effects of “climate change- permafrost degradation- hydrological response- natural hazards- carbon emission” in cold regions (e.g., the Qinghai-Tibet Plateau).



### Alejandro Palomo Gonzalez

研究助理教授 丹麦技术大学环境工程专业博士/博士后, 研究方向为微生物生态学、生物信息学, 阐述在自然生态和人工调控的生物地球化学过程中微生物的群落结构和生态功能, 例如氮循环中全程硝化细菌的基因组学分析和生态变异演化, 截至目前已在ISMEJ, Commun.Biol.等期刊上发表文章10余篇。

Research Assistant Professor. Ph.D and Postdoc in Environmental Engineering at Technical University of Denmark. The research focuses on bioinformatics and microbiology, to study the role of microorganisms in natural and human-engineered ecosystems – such as the ecology, genomics, physiology and evolution of microorganisms in the Nitrogen cycle. Dr. Palomo has published > 10 papers in ISMEJ, Commun.Biol., etc.



### 王淋淋 WANG Linlin

研究助理教授 清华大学博士。主要研究方向为人类活动和气候变化引起的近岸海洋环境变化; 水体富营养化过程及生态治理, 侧重牡蛎为代表的贝类的生态修复。研究期间发表论文10余篇, 其中第一作者9篇, 参加国际学术会议4次, 获得发明专利5项。

Research Assistant Professor Ph.D. Tsinghua University. His main research is the coastal marine environment changes caused by human activities and climate change, the water eutrophication process and ecological management, focusing on the ecological restoration of bivalves represented by oysters. To date, he has published more than 10 papers, including 9 as the first author, participated in 4 international academic conferences, and obtained 5 invention patents.



马云杰 MA Yunjie

研究助理教授 丹麦技术大学环境工程专业博士，南方科技大学博士后。研究方向为环境微生物学和水污染控制工程，包括微生物碳、氮代谢过程的模拟与机理研究，典型微量有机污染物的生物降解与迁移转化规律等。主持或参与国家自然科学基金项目、中国-丹麦国际合作项目等。

Research Assistant professor. Ph.D in Environment Engineering, Technical University of Denmark. The research focuses on environmental biotechnology in water pollution control, including microbe-mediated carbon and nitrogen cycles, the biotransformation and migration of micropollutants, and the microbial process modelling and metabolism study. Dr. Ma has led and participated in the Youth program of Natural Science Foundation of China, the international program of Danida Fellowship Center, etc.



马恩泽 MA Enze

研究助理教授 博士毕业于法国诺曼底大学勒阿弗尔分校，曾在南方科技大学环境科学与工程学院从事博士后研究工作。研究方向1) 多孔介质内的胶体与溶质运移模拟；2) 蒸汽入侵问题；3) 地下水及地表水温室气体排放。

Research Assistant Professor. Ph.D., University of Le Havre Normandy. He worked as postdoctoral research fellow in SUSTech during the period 2018-2021. Research areas: 1. Modelling of colloids and solute transport in porous media; 2. Hazardous vapor intrusion into building; 3. Greenhouse gas emission from subsurface and surface water.



董峰 DONG Feng

研究助理教授 英国伯明翰大学博士。研究方向包括 (1) 重金属生物地球化学；(2) 自然环境中纳米物质的迁移与转化；(3) 环境毒理学。主要研究侧重于环境微生物，探索细菌与环境污染物之间的相互作用。

Research Assistant Professor Ph.D., University of Birmingham. His research interests include 1) biogeochemistry of heavy metals, 2) nanomaterial transport and transformation in natural environments, and 3) environmental toxicology. His research explores the environmental microbiology and interactions of bacteria with contaminants in their geochemical environments.



余晓龙 YU Xiaolong

研究助理教授 京都大学博士，南开大学-南方科技大学联合培养博士后。主要研究领域涉及污水生物处理（厌氧氨氧化，微生物固定化，生物膜形成调控），污染物吸附和生物降解等方向。主持中国博士后科学基金面上项目，作为项目骨干参与科技部重点研发计划项目。

Research Assistant Professor. Ph.D., Kyoto University, Postdoctoral fellow of Nankai University and SUSTech. Dr. Yu's research focuses on biological wastewater treatment (anammox, microbial immobilization, regulation on biofilm formation), adsorption and biodegradation of pollutants.



杜二虎 DU Erhu

研究助理教授 美国伊利诺伊大学香槟分校环境工程博士。主要从事基于复杂系统的交叉学科研究，近期的研究方向包括流域地表水-地下水耦合模拟，环境大数据，水经济和环境政策分析，城市洪灾应急管理，传染病扩散模拟与防控等，相关的研究成果发表于水文水资源和环境科学领域国际权威期刊。

Research Assistant Professor. Erhu Du earned his PhD in Environmental Engineering, University of Illinois at Urbana-Champaign. Dr. Du is interested in interdisciplinary studies based on complex systems. His recent research directions include integrated surface water-groundwater modeling, big data and environmental informatics, water economics and policy analysis, flood management, and epidemic transmission and control.



范典 FAN Dian

研究助理教授 美国德克萨斯理工大学石油工程博士，曾在英国伦敦大学学院从事博士后研究工作。主要研究工作聚焦于多尺度地下地质体中流体和微纳固体颗粒的运移的理论和数值模拟。其研究应用于微纳塑料处理、油气藏开采过程的防砂、纳米环境示踪剂回收，以及水力压裂井的支撑剂设计。

Research Assistant Professor. Ph.D. in Petroleum Engineering, Texas Tech University, the USA. Prior to his hire at SUSTech, Dr. Fan worked as a Postdoc Research Associate at University College London, the UK. His research focuses on multi-scale theoretical and numerical studies of the transport of fluids and micro-/nano-particles in geological media. His work applies to micro-/nano-plastics removal, sand control in hydrocarbon productions, recovery of environmental nanoparticle tracers, as well as proppants design in hydraulic fracking.

## 助理研究员 RESEARCH ASSOCIATE



罗思媛 LUO Siyuan

助理研究员 荷兰莱顿大学博士，深圳市“孔雀计划”海外高层次C类人才。目前研究方向为金属有机环境新材料的开发及其在环境污染治理中的应用。具体包括：(1) 基于金属有机多孔材料的水体阴阳离子选择性去除 (2) 二氧化碳的电催化转化 (3) 电催化氧还原在环境科学领域中的应用。

Research fellow. PhD., Leiden University, The Netherlands. Dr. Luo's PhD research interests focus on the electrocatalysis of transition metal-organic compounds. Her current research mainly lies on the exploration of novel metal-organic nano-materials and their applications in environmental science, including: (1) Porous materials for selective aqueous ion removal; (2) carbon dioxide electroreduction to multi-carbon products; (3) Selective electrocatalytic oxygen reduction and its environmental application.

## 实验师 LAB SPECIALIST



熊鹰 XIONG Ying

实验师 高级工程师，教学实验师，厦门大学博士，北京大学环境工程博士后，研究方向为高性能膜材料及其在水处理领域的应用研究，新型水处理工艺技术研究与应用。目前负责环境科学与工程本科专业实验教学。

Lab Specialist. Senior engineer, Lab specialist, Ph.D., Xiamen University. She worked as a postdoctoral researcher on environmental engineer in Peking University. Her research focus on high performance membrane materials and its' application on water and wastewater treatment, Water and wastewater treatment technology. She is now responsible for environmental science and engineering undergraduate experimental teaching.



## 工程师 ENGINEER



罗树生 LUO Shusheng

工程师 本科毕业于汕头大学, 2010年12月获得中山大学食品安全生物学博士学位。主要从事环境有机污染物的微生物降解行为研究, 主持国家自然科学基金青年基金项目一项。2013年入职南科大, 现任南方科技大学环境科学与工程学院科研工程师, 主要负责学院土壤与地下水污染防治重点实验室和环境科学公共实验平台建设工作。2014年获深圳市高层次人才(后备级)认定。

Engineer. He got a Bachelor's degree from Shantou University of China in 2005 and a Ph.D degree from SUNYAT-SEN University in 2010. Dr. Luo currently works as an engineer in Southern University of Science and Technology. Prior to his current position, he worked in South China Agriculture University as a post-doctoral research fellow until August 2013. His research focused on the biodegradation of Polycyclic Aromatic Hydrocarbons (PAHs) and the environmental fate of PAHs metabolites, which is financially supported by the project of national Natural Science Foundation of China project for young scholars. Dr. Luo was elected as a reserve talent by the program of "Shenzhen High-level Talent Plan" in 2014.



张娟 ZHANG Juan

工程师 北京科技大学材料科学与工程硕士, 2018年获评检测与仪器仪表工程师职称。主要从事X射线光电子能谱仪(XPS)、高分辨扫描电子显微镜(SEM)等大型仪器设备的管理、检测、运行维护和应用分析。同时负责学院大型仪器共享管理平台网站的管理与维护, 以及学院公共科研平台的日常事务和对外宣传等工作。

Engineer. She obtained a master's degree (in 2014) of materials science and engineering from Beijing University of Science and Technology, and qualified the title of Testing and Instrumentation Engineer in 2018. She majors in the operation, maintenance and application analysis of the X-ray Photoelectron Spectroscopy and Scanning Electron Microscopy. At the same time, she is responsible for the management and maintenance of the website of the instrument sharing management platform, and the daily affairs and publicity of the public research platform of the School of Environmental Science and Engineering.



于凯 YU Kai

工程师 中国地质大学(武汉)博士。主要负责气体同位素比值质谱仪和其它环境示踪类仪器的管理和维护, 并协助开展学院公共仪器平台的建设工作。研究方向为环境同位素技术和同位素地球化学。

Engineer. Ph.D., China University of Geosciences (Wuhan). Dr. Kai Yu manages the instruments for environmental tracing studies such as gas isotope ratio mass spectrometer. His research focus on (1) Technology of environmental stable isotope analysis; (2) Stable isotope geochemistry.



施诗 SHI Shi

工程师 本科及研究生就读于北京科技大学材料科学与工程学院, 2015年在日本北海道大学取得博士学位, 此后在威斯康辛大学麦迪逊分校从事博士后研究。2021年入职南科大, 主要负责环境科学与工程学院环境扫描电镜及光学平台的管理与维护。研究方向为功能材料合成与分析、高分辨电子显微学及原位电镜测试分析技术。

Engineer. She received her bachelor's and master's degree from School of Materials Science and Engineering, University of Science & Technology Beijing, and Ph.D. degree in Materials Science from Hokkaido University in 2015, after then a postdoc in UW-Madison. Dr. Shi currently works as an engineer in School of Environmental Science & Engineering, managing ESEM and optical instruments. Her research interests include synthesis and analysis of functional materials, high-resolution electron microscopy and in-situ microscopy.



## Education 教育



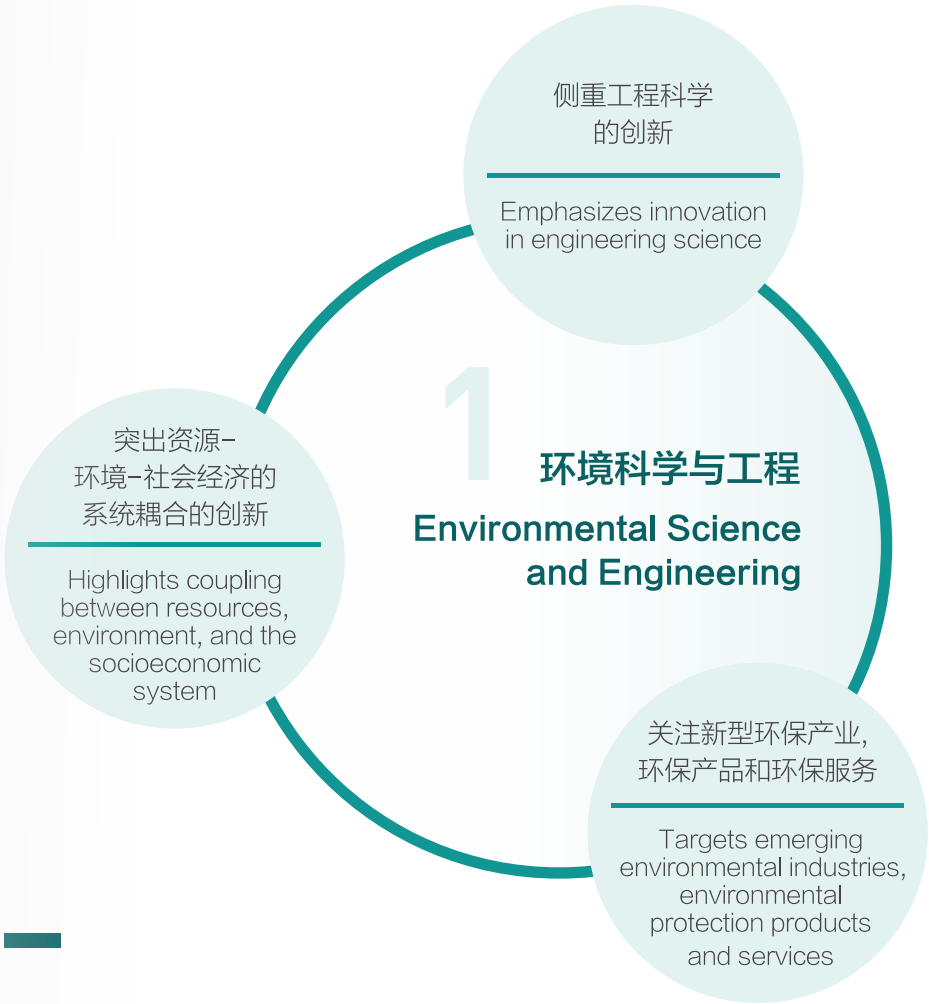
## 人才培养目标 Educational Goal

培养具有创新思维、国际化视野和多学科交叉背景的环境研究与管理人才  
To cultivate environmental research and management talents with innovative spirit, global vision, and multidisciplinary academic training.

## 本科教学 Undergraduate Programs

学院目前拥有教育部正式批准的两个本科专业：“环境科学与工程”和“水文与水资源工程”，其中环境科学与工程本科专业为广东省优势重点学科，并且入选广东省一流本科专业建设“双万”计划。本科专业教育注重坚实的专业知识基础，同时强调工程科学的创新。两个本科专业的教育各具特色：环境科学与工程专业突出资源-环境-社会经济的系统耦合，并关注新兴环保产业、环保产品和环保服务；水文与水资源专业教育强调地表水资源与地下水资源的一体化研究与管理，致力于介绍从分子到全球尺度的水科学。截止2020年9月，学院已有三届本科毕业生130余人；现有在读生本科生80余人。

The School currently has two undergraduate majors approved by the Ministry of Education: the Environmental Science and Engineering Major, which is an Advanced Key Discipline in Guangdong Province and was elected as the “Double Ten Thousand” plan for the first-class undergraduate major construction in Guangdong Province, and the Hydrology and Water Resources Engineering Major. Undergraduate education focuses on laying a solid foundation of professional knowledge while emphasizing innovation in engineering science. Both undergraduate majors have their specialties: the Environmental Science and Engineering Major specializes in resource-environment-socioeconomic system coupling and targets emerging environmental industries, environmental products and environmental services. The Hydrology and Water Resources Major emphasizes integrated research and management of surface water and groundwater resources and encompasses the sciences of water from molecular to global scale. The School has graduated 131 students from the Classes of 2014 and 2016; the current undergraduate body includes more than 80 students



## 水文与水资源工程 Hydrology and Water Resources Engineering



从分子到全球尺度的水科学  
Water sciences from the molecular scale to the global scale



强调水资源的保护与合理利用，而非水利工程开发  
Emphasizes the protection and smart utilization of water resources, instead of hydraulic engineering



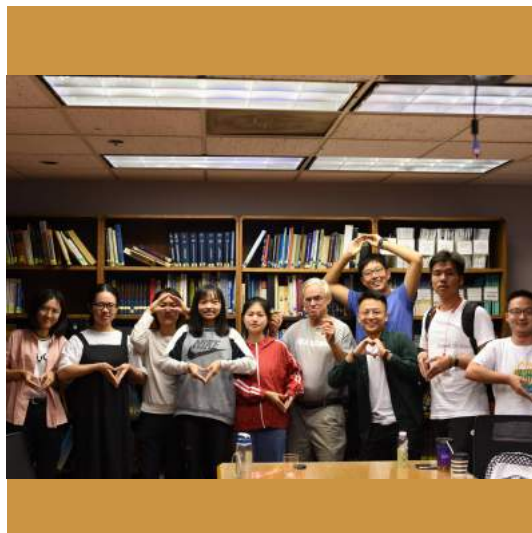
强调地表水资源与地下水资源的一体化研究与管理  
Emphasizes the integrated research and management of surface water and groundwater resources



# 实践实习活动 Practicum Experiences

环境学院强调学生创新能力的培养。通过组织包括暑期实习、国际夏令营等形式多样、内容丰富的实践实习活动,使环境科学与工程以及水文与水资源工程两个专业的学生都能深入环保企业和野外现场,了解如何将理论知识应用到实际问题中。

Our School cultivates strong innovation capability in our students. A key effort is to organize a rich practicum experience for them. Students majoring in both Environmental Science and Engineering and Hydrology and Water Resources Engineering have opportunities to attend various summer camps to obtain first-hand experiences at environmental firms or field research sites.



本科生在美国参加暑期实践课程  
Undergraduates participating in the summer practicum in the U.S.



学院本科生在企业进行认识实习  
Undergraduates participating in the cognition practice



## 研究生培养 Graduate Programs

2018年5月，南方科技大学正式成为博士学位授予单位和硕士学位授予单位，并从2019年开始独立招收博士研究生和硕士研究生(学硕、专硕)。同时，南科大继续与伯明翰大学、昆士兰大学等多所境外知名高校进行博士生联合培养，学生可获合作院校的学位。学院自2016年起招收联合培养研究生，截至目前已有71名毕业生，在读研究生超过200人。截至2021年7月，学生共发表各类论文超过100篇(其中SCI论文超过80篇)。前两届毕业生100%升学或就业，就业单位包括广东省建筑设计研究院、深圳水务规划设计院有限公司、中国上海建筑设计研究院有限公司等单位。

Southern University of Science and Technology has been officially authorized to grant doctoral and master degrees in 2018. The University has started to independently recruit doctoral students and master students since 2019. In addition, SUSTech continues to develop joint postgraduate programs with prestigious universities overseas. These include University of Birmingham, University of Queensland, and many others. Students will receive their graduate degrees from our partner institutions. Now, the School has more than 200 graduate students, and 71 graduate students have now obtained their degrees. As of July 2021, our graduate students have published more than 100 papers (including more than 80 SCI papers). The employment rate of our graduate students over the past two years is 100%.



博士生杨明作为深圳市优秀大学生党员代表，在深圳庆祝建党百年座谈会上向深圳市领导做汇报

PhD student Yang Ming as an outstanding student representative reported to Shenzhen's mayor and municipal party secretary on a symposium to celebrate one hundred years anniversary of the China Communist Party establishment at Shenzhen.

博士生华珊珊获  
CSES年会优秀论文一等奖

PhD student Hua Shanshan won the first prize of CSES annual conference excellent paper



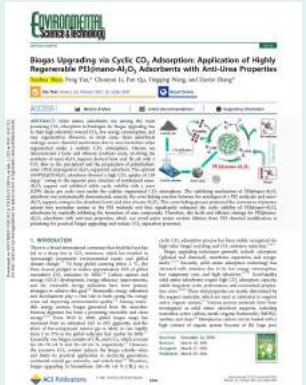
博士生周照强在Water Resources Research发表文章

PhD student Zhou Zhaoqiang published an article in Water Resources Research



博士生冯禹在Nature Sustainability发表文章

PhD student Feng Yu published an article in Nature Sustainability



博士生沈雪华在Environmental Science & Technology发表文章

PhD student Shen Xuehua published an article in Environmental Science & Technology





博士生孟莹荣获“北京大学唐孝炎环境科学创新奖学金三等奖”  
PhD student Meng Ying awarded the third prize of Tang Xiaoyan Scholarship



博士生王艺赴牛津大学交流学习  
PhD student Wang Yi at Oxford University



Research  
科研

## 科研平台 Research Platforms

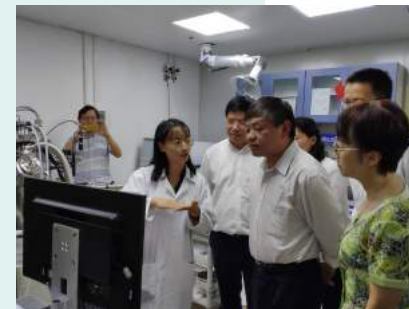


### 国家环境保护流域地表水-地下水污染综合防治重点实验室

#### State Environmental Protection Key Laboratory of Integrated Surface Water-Groundwater Pollution Control

本重点实验室是环境学院2018年获批建设的国家环保实验平台,也是南科大第一个部级重点实验室。重点实验室面向我国环境保护的重大科技需求,充分发挥依托单位的地域和人才优势,在基础理论、应用技术与管理政策等层面,开展以流域地表水-地下水污染综合治理为核心理念的前沿及应用性研究工作,为我国流域水环境保护和水污染防治提供有力的科技支撑和创新人才培养基地。

This is the first ministry-level Key Laboratory at SUSTech, which serves as a national research platform for integrated surface water-groundwater pollution control. The Key Laboratory aims to address the major needs in environmental protection in China, draws from the talents in the School of Environment, and conducts cutting-edge research in the comprehensive control of surface water and groundwater pollution.



### 广东省土壤与地下水污染防控及修复重点实验室、工程技术研究中心

#### Guangdong Provincial Key Laboratory of Soil and Groundwater Pollution Control

这些重点实验室及工程技术研究中心是南科大首批省级科研平台,以保障和改善土壤与地下水环境为目标,开展土壤与地下水污染防控与修复的前瞻性、战略性基础理论和应用技术研究。

As one of the first two province-level key laboratories at SUSTech, this research center provides an interdisciplinary and platform for both fundamental and applied research in soil and groundwater contamination and remediation, with emphases on technological development and talent cultivation to meet the urgent needs in Guangdong and Southern China.



### 深圳市重点实验室和工程实验室

#### Key Laboratories and Engineering Lab supported by the Shenzhen Municipal Government

这些实验室是由深圳市政府资助的与深圳市环保需求密切相关的优先研究机构,包括:深圳市土壤与地下水污染防治重点实验室、深圳市城市固体废弃物资源化技术与管理重点实验室、深圳市环境物联网技术与应用工程实验室。

These Key Laboratories and Engineering Lab are funded by the Shenzhen Municipal Government to conduct research and develop novel engineering solutions in strategic areas to address the local needs of environmental protection. Currently, the School has three such laboratories and engineering centers in soil and groundwater, solid waste management, and environmental internet of things (IoT) technologies.





# 3

## 三大特色研究方向 Three Featured Research Clusters

### 01 环境污染治理 Environmental Pollution Control

着眼于全球及区域日益严峻的环境污染问题,综合运用工程、化学、生物等多学科交叉的研究方法,揭示传统及新型污染物在水、土、气、固等多种环境介质中的迁移转化规律及生态效应;同时结合新型环境功能材料和人工智能技术,开发并应用先进治理技术与修复手段,聚力污染防治攻坚战,为解决环境污染问题提供理论基础和技术支持。

Focusing on the increasingly severe environmental issues, our mission is to find scientific and engineering solutions for the pollutions at regional and global scales. By integrating multidisciplinary methods in engineering, chemistry, biology, and other research areas, we aim at understanding the migration and transformation of conventional and emerging pollutants in various environmental media, including water, soil, air, and solids, as well as their ecological effects. By combining new environmental functional materials and artificial intelligence, we also work to advance treatment technologies and remediation methods. These cutting-edge research will lead to scientific and technological breakthrough in environmental protection and remediation.



### 02 水资源与水环境 Water Resources and Environment

研究与陆地水循环紧密耦合的生态环境过程,运用表层地球系统科学的理论与方法探索自然条件和人类活动影响下地球水圈物理、化学、生物特性的变化规律、驱动机制和调节策略,为水资源系统保护和可持续管理提供科学基础。研究成果可为解决当前和今后人类所面临的重大水资源、水环境、水生态和水灾害问题提供理论依据和科技支撑。

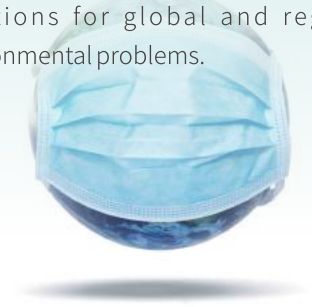
This research area is focused on the terrestrial water cycle and its coupled eco-environmental processes. Equipped with theory and methodology of surface-Earth system science, studies in this area address changes in physical, chemical and biological characteristics of hydrosphere under both natural and human-impacted conditions, as well as driving mechanisms of and regulation strategies for such changes. The studies aim to provide a theoretical foundation and technical supports for tackling the grand challenges of water resources, water quality, aquatic ecosystems and water hazards encountered by the present and future human-beings..



### 03 全球环境变化 Global Environmental Change

针对气候变化、水资源短缺、大气环境污染、生态系统退化等全球重大环境问题,以“地球系统”为研究对象,综合运用遥感、大数据、地球系统模型等多种方法,建立全球环境变化综合观测、系统模拟与大数据平台,完善环境遥感监测技术,产生系统而规范的全球变化数据,厘清地球系统多圈层相互作用机理,在全球环境变化领域关键科学问题上取得一批原创性成果,并研发面向社会需求的科学管理应对策略及山水林田湖生态修复技术,为解决全球和区域环境问题提供科技支撑和自然解决方案。

In the context of climate change, water scarcity, environmental pollution and ecosystem degradation, this research area works on the Earth System, establishes platforms of comprehensive monitoring, systematic simulation and big data, develops remote sensing technology, develops advanced monitoring datasets of the Earth, and reveals the interacting mechanisms between the Earth's atmosphere, hydrosphere, lithosphere, and biosphere. We conduct original research to address key scientific questions in global environmental change, develop technology for restoring degraded ecosystems, and provide nature-based solutions for global and regional environmental problems.



# 5

## 五大特色应用领域 Five Featured Application Fields

### 01 无废城市 Zero-Waste City



固废高效  
清洁利用



垃圾/危废  
焚烧超低排放

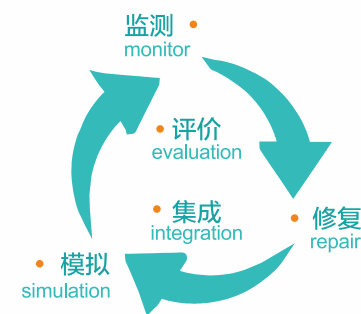


环境纳米  
功能材料

我国固体废物污染防治形势日渐严峻,“无废城市”建设是国家重大决策部署,也是从根本上解决固体废物污染问题的必由之路。从组分特征-物相结构-转化规律基础研究出发,围绕固废高效清洁利用、处理处置及资源化过程超低排放、环境功能材料设计等方面,构建新反应体系,开拓新技术,研发新材料,结合产业需求建设先行示范工程,率先为深圳市乃至粤港澳大湾区无废城市建设提供理论和技术支撑。

With the increasingly serious solid waste pollution in China, the development of “Zero-Waste City” is urgently needed to fundamentally solve the solid waste problem and a major national policy. Studies will focus on the structural characteristics and transformation mechanisms of critical components in solid waste, new technologies for efficient and clean utilization of solid waste, the development of technologies for ultra-low emissions, and the design of advanced functional materials. We will take the lead in providing scientific and technical support for the development of “Zero-Waste City” in Shenzhen and the Guangdong-Hong Kong-Macao Greater Bay Area.

### 02 生态修复 Ecological Restoration



针对我国生态修复理论基础不完备、技术体系不成熟等问题,构建渐进式生态修复理论,完善“环境治理-生态修复-自然恢复”三大模式,研发生态修复实用技术,制定生态修复标准,为我国山水林田湖修复保护和黑臭水体治理提供科技支撑。该方向已形成具有中国特色的生态修复理论体系和技术方法,并在我国十余个省份河流湿地生态修复工程中开展了技术示范和推广应用。

To address the needs for more complete and mature theoretical base and technologies in ecological restoration, we work to construct the theory of progressive ecological restoration, improve the coupled system of "environmental treatment-ecological restoration-natural restoration", develop practical technology for ecological restoration, and formulate standards for ecological restoration. These research support the nation's need for the protection of mountains, rivers, forests and lakes, as well as the treatments of polluted water bodies. This research group has already developed a theoretical and technological system for ecological restoration with Chinese characteristics. We have also initiated technical demonstrations and applications of ecological restoration engineering projects in rivers and wetlands in more than ten provinces in China.

开拓环境科学与信息科学交叉领域的前沿,探索大数据、人工智能和物联网技术在环境管理中的应用,服务于深圳、粤港澳大湾区乃至全国的智慧城市建设。研发工作重点包括:1) 创新环境大数据采集与处理技术,研发新型环境遥感数据产品、数据众包软硬件系统及多源环境大数据融合方法;2) 融合人工智能与物理过程模型,实现大数据条件下大气、土壤、地表水、地下水、近海海水的环境质量精准预报;3) 基于人工智能和物联网技术,研发城市水土和大气环境“监测-预警-决策-调控”智慧化管控系统。

Our faculty advance the interdisciplinary frontier of environmental science and information science, and apply big data, artificial intelligence (AI) and Internet of Things (IoT) in environmental management. This direction of research supports the ongoing Smart City development in Shenzhen, in Guangdong-Hong Kong-Macao Greater Bay Area, and in the entire nation. The research foci include the following: 1) innovation of environmental big data techniques, such as new environmental remote sensing data products, software and hardware for data crowdsourcing, and novel methods to fuse multisource environmental big data; 2) precise forecasting of air, soil and water (surface, subsurface and coastal) qualities based on integration of AI and physically based models; and 3) development of intelligent “monitoring-alert-decision-regulation” systems for managing urban water, soil and air pollutions based on AI and IoT.

### 03 智慧环保 Smart Environmental Protection



环境大数据  
采集



人工智能  
决策



智慧化管控  
系统



## 04 环境健康 Environmental Health



环境与健康是支撑健康中国的前沿交叉研究方向。通过研发高时空分辨检测技术、基于空天地大数据的精细化模式模拟技术,以及环境污染治理与风险管控技术等,揭示暴露途径与暴露剂量,实现污染物健康风险精准诊断、预警和管控。通过与生命健康学科交叉融合,旨在探究环境风险因子与个体生物特征及健康保护行为如何在不同生命阶段影响人群和个人健康,厘清现代疾病风险与环境污染暴露关系。

To support the Healthy China mandate, the School of Environment conducts cutting-edge multidisciplinary research in environmental health. In collaboration with biomedical scientists, we aim to explore how environmental risk factors interact with the biological systems and health protective behaviors of individuals, and, in turn, affect the health outcomes at different life stages. We seek to shed light on the mechanisms behind the associations between modern disease risks and exposure to environmental pollutants. Innovation in technologies is key to identify, reduce and eliminate environmental health hazards, including for example, high-spatiotemporal-resolution real-time pollution detection technology and big data-driven assimilation and modeling methods that reveal pathways and quantify doses of exposure.

“力争2030年前二氧化碳排放达到峰值,努力争取2060年前实现碳中和”已经成为引领未来我国经济社会发展的重大战略目标。减少大气温室气体排放是一个涵盖大气科学、公共管理学、环境工程学和能源科学等多学科的系统性科学问题。本方向主要研究领域包括:1) 基于地面大气主要温室气体浓度监测及其自上而下碳排放核算校验的支撑方法体系研究;2) 基于市场机制的大气温室气体总量控制与交易机制研究;3) 实现大气温室气体减排的关键能源技术特征解析、趋势预测和系统优化模型的开发;4) 开展工业点源CO<sub>2</sub>捕集、利用和封存技术及装备研发。

“Striving to reach the peak of carbon dioxide emissions by 2030, and striving to achieve carbon neutrality by 2060” has become the Nation’s strategic goal and will direct China’s future economic and social development. Reducing greenhouse gas emissions in the atmosphere is a systematic scientific problem, involving multiple disciplines such as atmospheric science, public administration, environmental engineering, and energy science. The main foci of this research area include: 1) key ground- and space-based monitoring technologies for atmosphere greenhouse gases and top-down emission estimation methods; 2) mechanisms of and strategies for market-based greenhouse gas emission control; 3) key energy technologies for reduce atmospheric carbon emissions; and 4) key technology for capture, utilization, and storage of industrial CO<sub>2</sub>.

## 05 大气减碳 Atmospheric Carbon Reduction

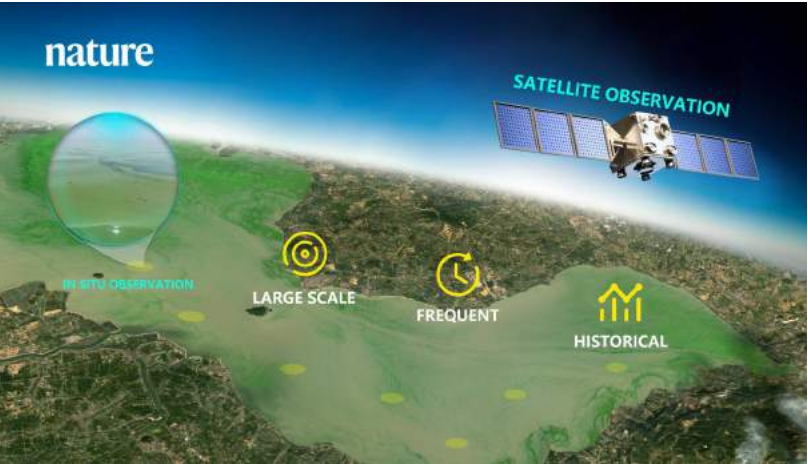


## 科研成果

## Scientific Research Achievements

学院2015年成立以来共发表SCI文章1100余篇,包括大量发表在Science、Nature及其子刊、PNAS等期刊的高水平论文。学院申请专利130余项,获授权专利50余项,登记软件著作权9项。承担包括国家科技重大专项、国家重点研发计划、国家自然科学基金在内的各类科研项目340余项,获批经费总额超过4亿元。

Since 2015, the School has published over 1100 SCI papers, including many papers published in Science, Nature and its affiliated journals, and PNAS. Nine software copyrights were obtained, and more than 50 patents were authorized. The School has been awarded more than 340 research projects, including major projects funded by the Ministry of Science and Technology, the NSFC, and other national, provincial, and municipal funding agencies. The total granted funding since 2015 exceeds 400 million RMB.

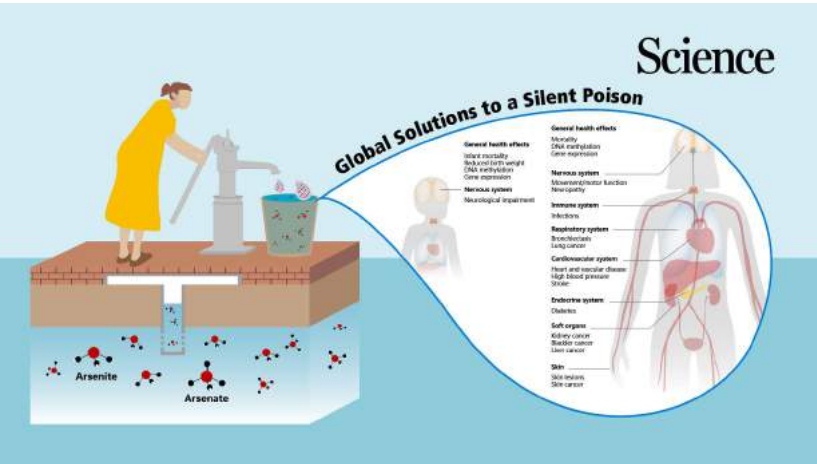


2021年2月发表于Nature, 冯炼  
Published in Nature in February 2021, Feng Lian

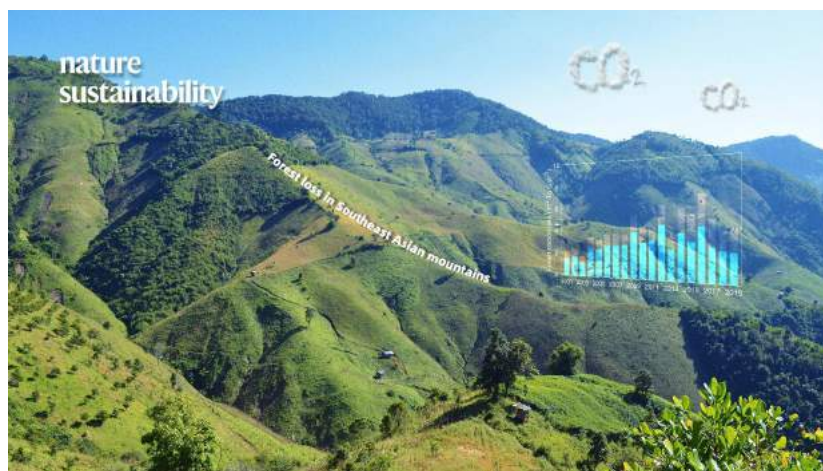
Title: Concerns about phytoplankton bloom trends in global lakes

2020年5月发表于Science, 郑焰  
Published in Science in May 2020, Yan Zheng

Title: Global Solutions to a Silent Poison







2021年6月发表于  
Nature Sustainability,  
曾振中  
Published in Nature  
Sustainability in June  
2021, Zeng Zhenzhong

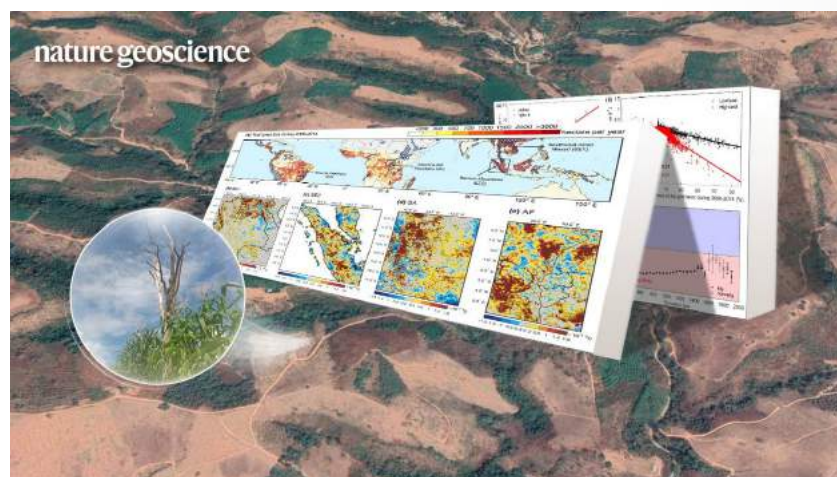
Title:  
Upward Expansion and  
Acceleration of Forest  
Clearance in the Mountains  
of Southeast Asia



2021年5月发表于 Journal of the American Chemical Society, 陈洪  
Published in Journal of the American Chemical Society in May 2021, Chen Hong  
Title: Interfacial Engineering of Bi<sub>19</sub>Br<sub>3</sub>S<sub>27</sub> Nanowires Promotes Metallic Photocatalytic CO<sub>2</sub> Reduction Activity under Near-Infrared Light Irradiation

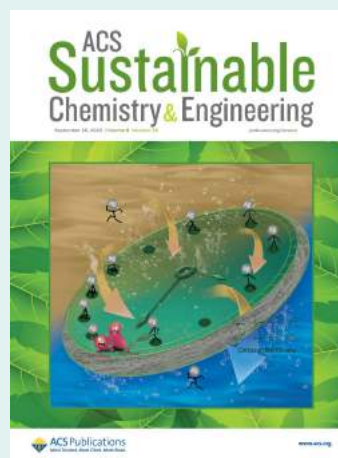
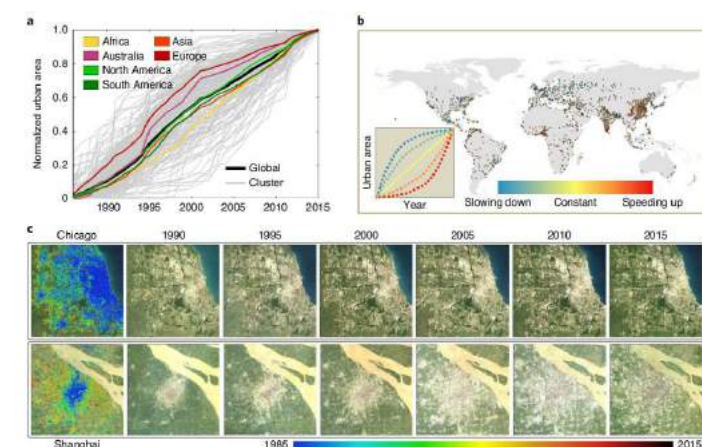
2020年12月发表于  
Nature Geoscience,  
曾振中  
Published in Nature  
Geoscience in  
December 2020,  
Zeng Zhenzhong

Title: Deforestation-  
induced Warming Over  
Tropical Mountain  
Regions Regulated by  
Elevation



2020年5月发表于  
Nature Sustainability,  
曾振中  
Published in Nature  
Sustainability in May  
2020, Zeng Zhenzhong

Title: High-  
spatiotemporal-  
resolution mapping of  
global urban change  
from 1985 to 2015



2020年8月发表于ACS  
Sustainable Chemistry &  
Engineering  
(封面文章), 刘崇炫  
Published in ACS  
Sustainable Chemistry &  
Engineering  
(cover paper) in August  
2020, Chongxuan Liu

Title: Tuning the  
Biodegradability of  
Chitosan Membranes:  
Characterization and  
Conceptual Design



2020年5月发表于  
Environment Science &  
Technology, 陈洪  
Published in  
Environment Science &  
Technology in May 2020,  
Hong Chen

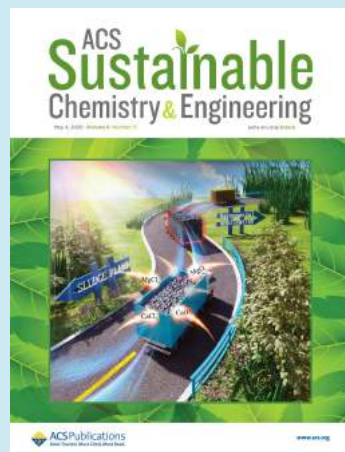
Title: Mixed Redox-  
Couple-Involved  
Chalcopyrite Phase  
CuFeS<sub>2</sub> Quantum Dots  
for Highly Efficient Cr(VI)  
Removal



2020年4月发表于  
Environmental Science &  
Technology (ES&T),  
郑春苗  
Published in  
Environmental Science &  
Technology (ES&T) in April  
2020, Chunmiao Zheng

Title: Transcriptomic  
analysis of bisphenol AF on  
early growth and  
development of zebrafish  
(Danio rerio) larvae





2020年2月发表于ACS Sustainable Chemistry & Engineering (封面文章), 张作泰  
Published in ACS Sustainable Chemistry & Engineering (cover paper) in February 2020, Zuotai Zhang

Title: Novel Recovered Compound Phosphate Fertilizer Produced from Sewage Sludge and Its Incinerated Ash



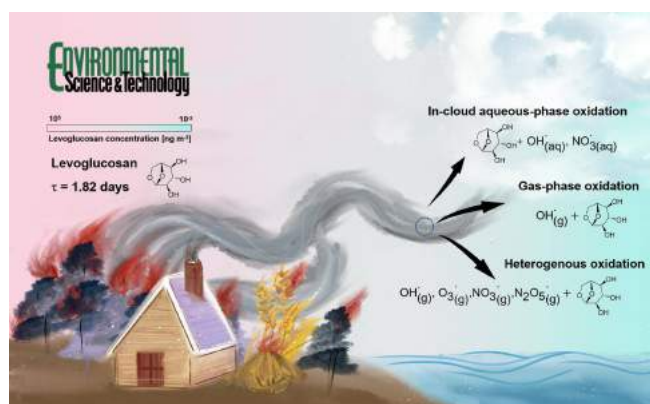
2019年11月发表于Nature Climate Change, 曾振中  
Published in Nature Climate Change in November 2019, Zhenzhong Zeng

Title: A reversal in global terrestrial stilling and its implications for wind energy production



2019年5月发表于Nature Communications, 王俊坚  
Published in Nature Communications in May 2019, Junjian Wang

Title: Nonlinearity of root trait relationships and the root economics spectrum



2021年4月发表于Environmental Science & Technology, 李钰敏、傅宗玫  
Published in Environmental Science & Technology in April 2021, Yumin Li and Tzung-May Fu

Title: Impacts of chemical degradation on the global budget of atmospheric levoglucosan and its use as a biomass burning tracer

## 代表性科研奖项 Scientific Research Awards (selected)



王俊坚、陈洪, 中国环境科学学会青年科学家奖, 2021  
Junjian Wang and Hong Chen, Young Scientists Award of Chinese Society For Environmental Sciences, 2021



郑春苗、易树平、裘文慧、张作泰、贲玉婕、范林峰等, 环境保护科学技术奖二等奖, 2020  
Chunmiao Zheng, Shuping Yi, Wenhui Qiu, Zuotai Zhang, Yujie Ben, Linfeng Fan and so on, Second Prize of Environmental Protection Science and Technology Award, 2020



刘俊国、张作泰、唐圆圆、齐伟等, 深圳市科技进步奖-社会公益类一等奖, 2020  
Junguo Liu, Zuotai Zhang, Yuanyuan Tang, Wei Qi and so on, First Prize of Shenzhen Science and Technology Progress Award, 2020



曾振中, 求是杰出青年学者奖, 2020  
Zhenzhong Zeng, Qiushi Outstanding Young Scholars Award, 2020



胡清等, 环境保护科学技术奖二等奖, 2019  
Qing Hu and so on, Second Prize of Environmental Protection Science and Technology Award, 2019



郑一, 中国自然资源学会优秀科技奖, 2019  
Yi Zheng, Excellent Science and Technology Award of China Natural Resources Society, 2019



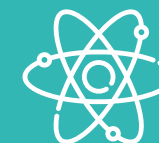
冯炼, 中国环境科学学会青年科学家奖, 2019  
Lian Feng, Young Scientists Award of Chinese Society For Environmental Sciences, 2019

# 南山环境讲坛

## Nanshan Distinguished Lecture Series on the Environment

学院定期举办高水平杰出系列讲座“南山环境讲坛”，邀请海内外知名学者进行学术讲座。自启动以来，已邀请海内外相关领域的知名学者进行学术讲座百余次。讲座嘉宾包括中国工程院院士王浩，中国科学院院士陶澍、傅伯杰、汪集旸、陈德亮，美国工程院院士 Christine Shoemaker、David Maidment、Michael Hoffmann、Bridget Scanlon，英国皇家工程院院士 David Lerner，加拿大科学院院士 Jeffery McDonnell 等。

The School organizes the Nanshan Distinguished Lecture Series on the Environment, which brings in renowned international and Chinese scholars to give lectures on cutting-edge research. To date, the lecture series has featured over 100 presentations by many well-known scholars, including Professor Hao Wang (Academician of the Chinese Academy of Engineering), Professors Shu Tao, Bojie Fu, Jiyang Wang, and Deliang Chen (Academicians of the Chinese Academy of Sciences), Professors Christine Shoemaker, David Maidment, Michael Hoffmann, and Bridget Scanlon (Members of the National Academy of Engineering, US), Professor David Lerner (Fellow of Royal Academy of Engineering, UK), and Professor Jeffery McDonnell (Member of the National Academy of Engineering, Canada).



Technology  
Innovation and Application  
产学研



# 南方科技大学工程技术创新中心（北京）

## SUSTech Engineering Innovation Center (Beijing)

南方科技大学工程技术创新中心(北京)，依托南方科技大学环境科学与工程学院，紧密结合我国环保产业发展现状及行业特点，定位于消除科研成果与产业应用之间的鸿沟，以为社会带来效益、给教师创造机会、为学生带来就业、给企业创造利润为发展宗旨。通过与学术界和工业界的联合，将科研成果有效社会化、产业化、公开化，打造国际化的环境保护领域创新平台。创新中心的主要工作包括：研发关键环保技术，推动关键环保技术的工程化开发和系统集成，推进其示范推广和产业化；参与我国环保行业政策、标准规范、技术导则的制定，为国家环境管理，监督与决策提供技术支持和服务；为大学生、专业人才和公司技术骨干提供专业培训，建设国际化产学研用交流与合作平台。

The SUSTech Engineering Innovation Center (Beijing) is supported by the School of Environmental Science and Engineering. Closely aligned with the development of the environmental protection industry in China, the Innovation Center focuses on bridging the gap between scientific research and industrial applications. It helps faculty to convert their research product to benefit the society, as well as provides employment opportunities to graduates and profits to enterprises. The Innovation Center connects the academia and the industry by commercializing cost-effective and publicly-accessible products or services, as well as pushes these SUSTech products and technologies to the global stage. The mission of the Innovation Center includes: development of key environmental technologies, promotion and integration of key environmental technologies into engineering applications, and demonstration and commercialization. The Innovation Center will also participate in developing Chinese environmental protection policies, standards and technical guidelines, providing technical support and services to central and local authorities in the fields of environmental management, monitoring, and decision-making.

# 深圳市南科环保科技有限公司

## SUSTech Environmental Ltd.

2016年,在深圳市科技创新委员会与南方科技大学的支持下，深圳市南科环保科技有限公司成立。公司充分利用南科大环境学院的技术和人才优势，努力打造一流的技术研发和产业化平台。公司在流域环境规划和综合治理、土壤和地下水污染防治、底泥及固废处置和资源化利用、基于物联网和互联网的环境综合监测管理的“智慧平台”搭建等领域，具有宽阔的国际视野和先进的技术水平。

SUSTech Environmental Ltd. was established in 2016 with support from the Scientific Innovation Commission of Shenzhen City and the Southern University of Science and Technology. SUSTech Environmental Ltd. aims to leverage the expertise of the School's faculty to build up a leading R&D and technology transfer base. The firm currently focuses on watershed planning and management, soil and groundwater pollution control, contaminated sediment and solid waste recycling, and web-based environmental monitoring and sustainable technologies.