



第三届可持续发展大数据国际论坛

The 3rd International Forum on Big Data for Sustainable Development Goals

2023年9月6日-8日 中国 北京

Special session title: Youth Responsibilities and Actions to Address SDGs Data and Information Gap

Organizer:

International Research Center of Big Data for Sustainable Development Goals (CBAS);

CAS-TWAS Centre of Excellence on Space Technology for Disaster Mitigation (SDIM).

Supported by:

The World Academy of Sciences (TWAS);

Committee on Data of the International Science Council (CODATA);

Integrated Research on Disaster Risk (IRDR);

Digital Belt and Road (DBAR);

ISDE Young Scientist Innovation Network (ISDE-YSIN);

Youth Innovation Promotion Association CAS (YICAS);

The Innovation journal;

International Journal of Remote Sensing;

Journal of Remote Sensing.

Short Description

This session will connect global organizations, international academic journals, senior professionals and young talents to seek cooperative development in the field of SDG big data, with the ultimate goal of empowering young talents to become an important scientific and technological force in the global development initiatives and the implementing of the SDGs.

Expected Results

Youth Responsibility and Action Initiative to Address SDGs Data and Information Gap.



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Agenda

Time 13:00-18:30, September 6th 2023 Room: 201 A

Moderators:



Kevin Tansey

Professor

University of Leicester

Kevin Tansey is a professor of remote sensing and Earth observation at the University of Leicester in the UK. He is also the Editor-in-Chief of the International Journal of Remote Sensing published, since 1980, by Taylor & Francis. He is the member of the IEEE and the UK's RSPSoc. He has led more than 50 research projects funded by various institutions, including the European Commission, European Space Agency, UKRI and the Royal Society. His research interests are in remote sensing of the land surface, and is especially interested in wildfire mapping, agricultural yield estimation and crop characterization. He is interested in the use of machine learning and deep learning algorithms to process large and complex data sets. He has developed strong links with Peking University, China Agricultural University and Hohai University through various research projects and student and researcher exchanges.

Event 1: Opening Remarks (13:00-13:30)



JIA Gensuo

Professor

International Research Center of Big Data for Sustainable Development Goals

JIA Gensuo is a professor at the Institute of Atmospheric Physics, Chinese Academy of Sciences (CAS) and the Director of CAS Global Change Research Center for East Asia (START TEA). Prof. Jia serves as deputy director of CBAS, chair of science planning panel of CAS Big Earth Data Science Engineering program (CASEarth), coordinating lead author (CLA) of



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IPCC Special Report on Climate Change and Land (SRCCL), CLA of UNEP Global Environmental Outlook (GEO-7), member of UNEP-ISC Foresight Expert Panel, deputy co-chair of Group on Earth Observation (GEO) climate change working group, member of review panel for UN Global Sustainable Development Report (GSDR), and IPBES nexus assessment scoping expert. Prof. Jia has broad research interests in terrestrial ecology and atmospheric sciences, including multi-scale remote sensing of land surface processes, ecosystem-climate interactions, climate extremes and natural disasters, and climate change impacts and adaptation. He published over 100 peer reviewed papers in science journals including Science, Nature Climate Change, Science Advances, Global Change Biology, BAMS, and Remote Sensing of Environment in recent years.



Quarraisha Abdool Karim

Professor

The World Academy of Sciences for the advancement of science in developing countries

Abdool Karim, is an infectious diseases epidemiologist whose seminal contributions spanning over three decades have shaped the global HIV prevention landscape, notably in prevention technologies for women. She demonstrated that ARVs prevent sexually transmitted HIV that laid the foundation for HIV pre-exposure prophylaxis (PrEP); and has provided insights in Africa and globally on the impact of Covid-19 on HIV and in the evaluation of Covid-19 vaccines and therapeutics. Abdool Karim is the President of The World Academy of Sciences (TWAS). She is an elected member of the National Academy of Medicine (USA); and Fellow of The World Academy of Science, Royal Society of South Africa, Academy of Science of South Africa and the African Academy of Science. Her research contributions have been recognized nationally and internationally with over 30 honors including South Africa's Order of Mapungubwe, 2014 TWAS-Lenovo Prize; the John Dirks Canada Gairdner Global Health Award; the 2020 Christophe Mériex Prize; and the 4th Hideyo Noguchi Africa Prize for Medical Research. She is the Associate Scientific Director of CAPRISA; Professor in Clinical Epidemiology, Columbia University; and Pro-Vice Chancellor for African Health, University of KwaZulu-Natal, South Africa.



Gretchen Kalonji

Professor



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Institute for Disaster Management and Reconstruction, Sichuan University

Professor Kalonji was the Assistant Director General for Natural Sciences at UNESCO (2010 – 2014), where she had responsibility for multiple intergovernmental scientific programs, including the International Hydrological Program (IHP), the Man in the Biosphere Program (MAB), the International Geosciences Program (IGCP) and the International Basic Sciences Program. Her current focus is on development of multinational, multidisciplinary project-based approaches for better targeting the collaborative research efforts of our universities towards achieving the Sustainable Development Goals.

Event 2: Young Scientists' Report (13:30-14:30)

Big data drive innovative tools towards zero-growth of man-made mass & sustainable cities



LIU Yupeng

Associate Professor

Institute of Urban Environment, Chinese Academy of Sciences

Dr. LIU Yupeng is the executive director of the Urban Health and Wellbeing Programme (UHWB), ISC and an associate professor at the Institute of Urban Environment, Chinese Academy of Sciences. Dr. Liu's studies cover urban ecology, industrial ecology and landscape sustainability. He is good at urban 3-D environment modeling and resource and environmental assessment by combining remote sensing technology, geographic information system, material flow analysis, and other ecosystem models. He has published more than 40 scientific papers and served for more than 20 peer-reviewed journals as reviewer or guest-editor.

Urban forests in support of sustainable and equitable city development



LIN Jian

Postdoctoral Scholar

The Chinese University of Hong Kong

Dr LIN Jian is a Postdoctoral Scholar at the Chinese University of Hong Kong and an Adjunct Research Fellow at the University of California Merced. Dr Lin obtained his PhD degree in Environmental Science from the State University of New York. His research focuses on urban forest modeling and ecosystem service quantification, and nature-based solutions for sustainable cities. In the past five years, he has published 18 papers in top SCI/SSCI journals including Nature Energy, and



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led or participated in the projects funded by the California Air Resources Board, the California Strategic Growth Council, and the United States Department of Agriculture. In addition, he is the Secretary of the ISDE Young Scientist Innovation Network and the Assistant Editor of the international journal Computational Urban Science.

AI driven high resolution debris flow risk assessment based on public remote sensing data



Andreas Nienkötter

Postdoc

Sichuan University

Andreas Nienkötter is Postdoc at the interdisciplinary Institute for Disaster Management and Reconstruction, Sichuan University - Hong Kong Polytechnic University. He received his PhD in computer science at University of Münster, Germany, in 2021. His research interests include robust aggregation of arbitrary data, distance-based vector space embedding and dimensionality reduction methods, as well as machine learning and deep learning methods. He is currently focusing on applications in geohazard risk assessment, analysis and prediction.

Does having more sustainable communities bring better sustainability?



ZHANG Junze

Doctor

Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences

ZHANG Junze is currently a postdoctoral scholar at the Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences. He received his Ph.D. degree in the field of Physical Geography from Beijing Normal University in 2021. He has been funded by the Young Scientists Fund of the National Natural Science Foundation of China and has published 17 papers as the first author in journals such as Science Bulletin, Nature Ecology and Evolution, and The Innovation. One of the papers has been selected as an ESI highly cited paper. His research focuses on ecosystem services, ecological restoration, and sustainable development.

Event 3: Journal Editors' Report (14:30-15:00)



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Scopes and progresses of *Journal of Remote Sensing*



LIU Liangyun

Professor

Aerospace Information Research Institute, Chinese Academy of Sciences

LIU Liangyun is Professor with the Aerospace Information Research Institute, Chinese Academy of Sciences, Beijing, China. He was awarded five government prizes, including two second-class national scientific and technological progress awards, and was also honored by National Science Fund for Distinguished Young Scholars in 2018. He is the executive Editors-In-Chief of *Journal of remote sensing*. His research majors in quantitative remote sensing of vegetation.

Publishing in the *International Journal of Remote Sensing*



Kevin Tansey

Professor

University of Leicester

Kevin Tansey is a professor of remote sensing and Earth observation at the University of Leicester in the UK. He is also the Editor-in-Chief of the *International Journal of Remote Sensing* published, since 1980, by Taylor & Francis. He is the member of the IEEE and the UK's RSPSoc. He has led more than 50 research projects funded by various institutions, including the European Commission, European Space Agency, UKRI and the Royal Society. His research interests are in remote sensing of the land surface, and is especially interested in wildfire mapping, agricultural yield estimation and crop characterization. He is interested in the use of machine learning and deep learning algorithms to process large and complex data sets. He has developed strong links with Peking University, China Agricultural University and Hohai University through various research projects and student and researcher exchanges.

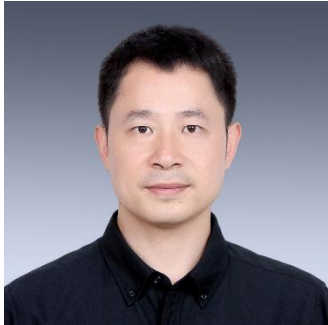


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The Innovation is a rising star journal



CHEN Ke

After doctoral graduation from Peking University, CHEN Ke joined the Beijing Institute of Genomics of the Chinese Academy of Sciences (CAS) and visited MD Anderson Cancer Center from 2018 to 2019. He won the title of "Excellent Member" of the Youth Innovation Promotion Association, CAS in 2017. He is one of the founders of The Innovation, which is an international multidisciplinary English journal. Ke CHEN mainly engages in research related to oncology. He has host two projects funded by the National Natural Science Foundation of China and published 15 SCI indexed papers in per-reviewed journals such as Cell Research, Cancer Cell, and Emerging Infectious Diseases.

Event 4: Panel Discussion (15:30-17:00)

Topics:

- 1) Working Interdisciplinary (AI & Big Earth Data & SDG&...)
- 2) Working Internationally
- 3) Impactful Research & Publishing Your Research
- 4) Effective Career Planning & Become an Entrepreneur
- 5) Drive and Support Youth Responsibility and Actions to Address the SDG Data Gaps

Panel Speakers:

Baniya Binod (Tribhuvan University, Nepal);

DU Xiaoping (CBAS, China)

Joseph Balkudembe (IDMR, Sichuan University-The Hong Kong Polytechnic University, China);

Marcial Rivera Rodríguez (WFEO CDRM, Costa Rica);

Nurfashareena Muhamad (University Kebangsaan Malaysia, Malaysia)

Simon Hodson (CODATA, France);

Suresh Chaudhary (National Society for Earthquake Technology-Nepal, Nepal);

CHEN Ke (The Innovation journal, China);

JIA Mingming (Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, China);

LIN Jian (Chinese University of Hong Kong, China);

LI Yong (Tsinghua University, China);

LIAN Fang (IRDR, China);

LIU Yupeng (Institute of Urban Environment, Chinese Academy of Sciences, China);

WANG Lei (CBAS, China);



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WANG Shaohua (CBAS, China);

WANG Shenglei (CBAS, China);

ZHANG Junze (Ecoenvironment Research Center, Chinese Academy of Sciences, China);

ZHANG Miao (AIRCAS, China);

ZHANG Yiwen (Nanyang Technological University, Singapore).

Event 5: Poster (17:00-18:00)

ID.	Title	First Author	Affiliation
P01	Field-scale maize yield prediction and growth stage optimization based on UAV hyperspectral imagery	ZHANG Yue	Jilin Agricultural University
P02	Decoding the inconsistency of six 10- and 30-m cropland maps in China	CUI Yifeng	Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
P03	Strategic COVID-19 vaccine distribution can simultaneously elevate social utility and equity	CHEN Lin	Hong Kong University of Science and Technology
P04	Public Health Priorities for Sino-Africa Cooperation in Eastern Africa in Context of Flooding and Malaria Burden in Children: A Tridecadal Retrospective Analysis	Joseph Balikudembe Kimuli	Sichuan University - Institute for Disaster Management and Reconstruction
P05	The relationship between energy balance and water quality in lakes across China	GUO Linan	Institute of Tibetan Plateau Research, Chinese Academy of Sciences
P06	Variations in Water Clarity of Shenzhen Coastal Area: Observation from Sentinel-2	ZHAO Yelong	Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences
P07	Satellite observation of water clarity in inland waters across Hainan Island and implications for SDG6.3.2 evaluation	QIU Ruiting	Aerospace Information Innovation Research Institute of the Chinese Academy of Sciences
P08	Analyzing Youth Employment Challenges: A Data-Driven Perspective Using Labor Force Indicators	Israr Ahmad	Chongqing University of Posts and Telecommunications
P09	Space optimization site selection of Beijing Cainiao station based on multi-source spatial data	ZHANG Zezhi	Lanzhou Jiaotong University



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P10	Optimization of shared bicycle location in Wuhan city based on multi-source geospatial big data.	WANG Runqiao	Lanzhou Jiaotong University
P11	Urban 3D Structure Analysis with Multimodal Deep Learning Using Day and Night Satellite Images	LI Zilu	Aerospace Information Research Institute, Chinese Academy of Sciences
P12	Application of GF-3 SAR data and Stacking ensemble learning model for dynamic inundation extent mapping in diverse regions	ZHAO Fenqi	Aerospace Information Innovation Research Institute of the Chinese Academy of Sciences
P13	Sino-Africa Research Network on Disaster Risk Reduction and Sustainable Development Goals	Joseph Balikuddembe Kimuli	Sichuan University
P14	AI driven high resolution debris flow risk assessment based on public remote sensing data	Andreas Nienkötter	Sichuan University-Hongkong Polytechnic University
P15	Economic risk assessment and estimation of associated factors due to major power outages	Naveed Taimoor	Chongqing University of Posts and Telecommunications
P16	A seasonal warming in the subsurface of the southern Bay of Bengal and its forming mechanisms	CHEN Tuyi	Sun Yat-sen University
P17	A hydrologically controlled surge-type glacier: a case in the Western Pamir	FENG Jing	Yunnan University
P18	Tracking SDG15.1.2 over China and Southeast Asia by innovating Big Earth Data-enabled biodiversity monitoring	ZHAO Yuhe	Lanzhou University
P19	An improved shape-based model to estimate vegetation annual gross primary productivity by accounting for phenology and physiology	GUI Hanliang	Sun Yat-sen University
P20	Global distribution, trends, and drivers of soil moisture from 2000 to 2021	PENG Chenchen	Aerospace Information Research Institute, Chinese Academy of Sciences
P21	Landslide Inventory, Deformation, and Development Characteristics of Landslides along the China-Pakistan Karakoram Highway, by SBAS-InSAR	SU Xiaojun	Qinghai Normal University
P22	The Effectiveness of ESG-E to Achieve Sustainable Development Goals	ZHANG Yiwen	Nanyang Technological University



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P23	Submesoscale oceanic eddy detection in SAR images using context and edge association network	XIA Linghui	Ocean University of China
P24	Naive Bayes classification-based surface water gap-filling from partially contaminated optical remote sensing image	BAI Bingxin	Ocean University of China