



## 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

### **Session title: Data-driven and Visualization of River Basin Ecological Protection**

**Session Organizer:** Henan University, Masaryk University

#### **Short Description**

Milan Konecny, Professor of overseas lectures, Henan University, China. Professor, University of Massachusetts, Czech Republic. Former chairman of International Cartographic Association (ICA); Vice-chairman of the International Society for Digital Earth (ISDE), vice-director of International Eurasian Academy of Sciences. Research field: Geographic Information System, Disaster Management, etc.

QIN Mingzhou: Professor, Distinguished professor, Henan University. Head of scientific and technological innovation base for ecological construction and rural revitalization along the Yellow River in Henan Province. Chairman of Henan Land Society, Committee of ILEA-China International Landscape Ecology Society China Branch, Committee of China Land Society.

#### **Objectives**

Exploring the mechanism, process and driving factors of basin ecosystem evolution, using various GIS tools, inversion, simulation and visualization technologies, which have a direct supporting role in the priority of basin ecological protection, key protection areas and key species protection, and have made important scientific contributions to the scientific research of basin processes, patterns and their evolutionary mechanisms.

#### **Expected Results**

We hope that the speakers of the conference can provide the latest achievements in the study of ecological protection of river basins driven by big data, and submit research papers and reports on the use of big data technology in flood prevention and control of river basins, wetland protection, water quality protection, soil erosion, soil quality change, etc. Share and exchange experience and latest achievements on ecological management and conservation policies for river basins in achieving the Sustainable Development Goals (SDGs)



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## Agenda

Time: 10:30-12:00, September 7th 2023 Room: 305 C

### Moderators:



**Milan KONECNY**

**Professor**

**Henan University, Masaryk University, Czech Republic.**

Overseas Chair Professor, Henan University, China. Professor, Masaryk University, Czech Republic, Member and Vice President of the International Eurasian Academy of Sciences, former President of the International Cartographic Association (ICA); Vice President, International Society for Digital Earth (ISDE). Research interests: Geographic Information system, disaster management, etc.



**QIN Mingzhou**

**Professor**

**Henan University**

Second-level professor, Distinguished Professor, doctoral supervisor of Henan University; Director of the scientific and technological Innovation Base of Ecological Construction and Rural Revitalization in the Yellow River Basin of Henan Province, and Director of the postdoctoral innovation team of the geography discipline in Henan Province. Chairman of Henan Land Society, member of China International Society of Landscape Ecology China Branch council, member of China Land Society council. Experts of Henan Province natural resources, land and space planning think tanks. Expert of the third national soil census, expert leader of the third soil census platform in Henan Province, expert of Henan Provincial government college reform work group.

### Participants

**Event 1 (25 minutes)**



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**AGEDA 2030 and SENDAI FRAMEWORK: Spatial data Support (U.N. GGIM and DBAR) and challenges for Geoinformatics, Geodesy and Cartography**



**Milan KONECNY**

**Henan University, Masaryk University, Czech Republic.**

**Event 2 (20 minutes)**

**Spatial and temporal analysis methods and applications of environmental disasters in river basins.**



**JAY LEE**

**Kent State University, USA**

Jay Lee, professor, doctoral supervisor, Kent State University, USA. In 1989, he received his Ph.D. in geography from Western Ontario National University, Canada, under the guidance of Professor Goodchild, the father of geographic information science and an American Academician of science. He has served as chairman of the Geography Department of Kent State University, Vice chairman and Chairman of the Research Committee of Kent State University, and has long been an expert of the Technical Review and Geographic Analysis Group of the U.S. Department of Housing and Urban Development and the National Department of Justice.

**Event 3 (15 minutes)**

**Landscape ecological characteristics and ecological protection system planning of the Lower Yellow River reaches**



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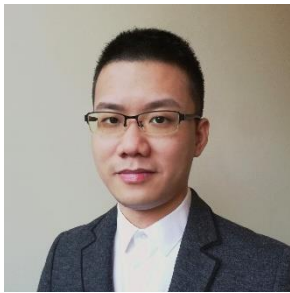
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**QIN Mingzhou**  
Henan University, China.

### Event 4 (15 minutes)

Assessing the relationship between built environment and cardiovascular health through satellite and street view images: a cohort study of Cleveland in the Cuyahoga River watershed



**CHEN Zhuo**  
Case Western Reserve University, USA

Dr. CHEN Zhuo is a postdoctoral scholar at Case Western Reserve University, specializing in geospatial modeling and analysis of cardiometabolic health outcomes. He holds a Ph.D. in Geography from Kent State University. Dr. Chen has extensive research experience applying GIS and spatial analysis to study public health issues. His work focuses on examining spatial determinants of chronic disease, health disparities, and environmental risks. He has co-authored several publications on topics including neighborhood walkability, air pollution, and social media diffusion modeling. Dr. Chen has received grant funding to conduct fine-scale socio-environmental phenotyping of cardiometabolic risk factors. His current research focuses on leveraging state-of-the-art machine learning techniques with clinical data and remotely sensed imagery to examine patients' residential built environment, and thus predict adverse cardiovascular events.

### Event 5 (15 minutes)

How does urbanization process affect ecological landscape pattern? An empirical analysis based on scale effects.





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### **ZHANG Pengyan**

**School of Urban Economics and Public Administration, Capital University of Economics and Business, China**

ZHANG Pengyan, Ph.D., Professor and doctoral supervisor of Capital University of Economics and Business. Visiting scholar of Kent State University, USA. Central Plains youth top talents, Henan Universities science and technology innovation talent (natural science). His main research interests are land use and resource and environmental protection. He has published more than 80 high-level articles, including 18 papers in Top journals. He edited 3 books and participated in editing 3 books.