

PROGRAMME (Draft)

International Symposium on
Watershed Geographic Sciences
流域地理学国际研讨会



October 11-14, 2016 Nanjing China

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Welcome Address

It is our great honor to welcome you to the International Symposium on Watershed Geographic Sciences (ISWSGS2016), organized by Nanjing Institute of Geography and Limnology (NIGLAS), Chinese Academy of Sciences, in Nanjing, China on October 11-14, 2016.

The theme of ISWSGS2016 is Methodologies and Practices of Watershed Geography. To emphasize this theme, 7 keynote sessions, 6 panel sessions, a session for young scientists and field trips are organized. We hope the Symposium will deepen the understanding of approaches and practices of watershed geography, provide a forum for the exchange of experience and stimulate the interest and ambition of participants to develop potential collaboration.

Nanjing, located in Yangtze River Delta area, is the capital of Jiangsu province, People's Republic of China and the second largest city in the east China region. Nanjing is one of the most beautiful cities of mainland China with lush green parks, natural scenic lakes, small mountains, historical buildings and monuments, relics and much more, which attracts thousands of tourists every year.

We look forward to welcoming you in Nanjing.

Sincerely,
ISWSGS 2016 Organizing Committee

Organizers

Nanjing Institute of Geography and Limnology (NIGLAS), Chinese Academy of Sciences (CAS)

Co-organizers

Key Laboratory of Watershed Geographic Sciences (WSGS), CAS

Editorial Board of *Resources and Environment in the Yangtze Basin*

Yangtze Branch of the Geographic Society of China

Resources and Geography Committee of China Society of Natural Resources

College of Geographic and Oceanographic Sciences, Nanjing University

Limnology and Wetlands Branch of the Geographic Society of China

Advisory Committee

Chairmen:

Prof. Bojie Fu
Academician of Chinese Academy of Sciences, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences

Prof. Guishan Yang
Nanjing Branch of Chinese Academy of Sciences, Nanjing Institute of Geography and Limnology Chinese Academy of Sciences

Members

Prof. John M. Melack University of California, Santa Barbara, USA
Prof. Michael Rode The Helmholtz Association, Germany
Prof. Adrian D. Werner Flinders University, Australia
Prof. Qiguo Zhao Academician of Chinese Academy of Sciences, Institute of Soil Science, Chinese Academy of Sciences
Prof. Guodong Cheng Academician of Chinese Academy of Sciences, Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences
Prof. Dadao Lu Academician of Chinese Academy of Sciences, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
Prof. Jianyun Zhang Academician of Chinese Academy of Engineering, Nanjing Hydraulic Research Institute
Prof. Chao Wang Academician of Chinese Academy of Engineering, Hohai University
Prof. Fahu Chen Academician of Chinese Academy of Sciences, Lanzhou University

Prof. Peng Cui Academician of Chinese Academy of Sciences, Institute of Mountain Hazards and Environment, Chinese Academy of Sciences
Prof. Chenghu Zhou Academician of Chinese Academy of Sciences, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
Prof. Jun Xia Academician of Chinese Academy of Sciences, Wuhan University
Prof. Zhenpeng Hu Nanchang University
Prof. Xiaogan Yu Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences
Prof. Changqing Song National Nature Science Foundation of China
Prof. Hui Lin The Chinese University of Hong Kong
Prof. Min Liu East China Normal University
Prof. Yaolin Liu Wuhan University
Prof. Shuying Leng National Nature Science Foundation of China

International Symposium on Watershed Geographic Sciences

Prof. **Jun Bi**

Nanjing University

Prof. **Xinming Tang**

Satellite Surveying and Mapping Application Center
of National Administration of Surveying Mapping
and Geo-information of China

Prof. **Jun Wang**

Changjiang Water Resources Commission of the
Ministry of Water Resources

Prof. **Wei Deng**

Institute of Mountain Hazards and Environment,

Chinese Academy of Sciences

Prof. **Kelin Wang**

Institute of Subtropical Agriculture, Chinese
Academy of Sciences

Prof. **Ganlin Zhang**

Institute of Soil Science, Chinese Academy of
Sciences

Prof. **Ji Shen**

Nanjing Institute of Geography and Limnology,
Chinese Academy of Sciences

Organizing Committee

Chairman

Prof. **Guishan Yang**

Nanjing Branch of Chinese Academy of Sciences, Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences

Members

Prof. **Ji Shen**

Nanjing Institute of Geography and Limnology,
Chinese Academy of Sciences

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Nanjing Institute of Geography and Limnology,
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Nanjing Institute of Geography and Limnology,
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Nanjing Institute of Geography and Limnology,
Chinese Academy of Sciences

Prof. **Qing Zhu**

Nanjing Institute of Geography and Limnology,
Chinese Academy of Sciences

Prof. **Hongtao Duan**

Nanjing Institute of Geography and Limnology,
Chinese Academy of Sciences

Schedule

KS – Keynote Session

PS – Panel Session

11 OCT (Tue)		
8:30-18:00	Lobby	Registration
12 OCT (Wed)		
8:30-9:00	Fairview Hall	Opening Ceremony & Group Photo
9:00-9:30		Coffee Break
9:30-11:45		Keynote Session
12:00-13:30	Lunch	
13:30-14:30	Verdure Hall A	KS on Soil & Water Processes (13:30-15:00)
	Verdure Hall B	KS on Watershed Planning & Development
	Verdure Hall C	KS Session on RS, GIS & Modeling
14:30-15:00	Coffee Break	
15:00-17:30	Verdure Hall A	PS on Soil & Water Processes (15:30-17:30)
	Verdure Hall B	PS on Watershed Planning & Development
	Verdure Hall C	PS on RS, GIS & Modeling
17:30-18:30	Dinner	
13 OCT (Thu)		
8:30-9:30	Verdure Hall A	KS on Soil & Water Processes
	Verdure Hall B	KS on Watershed Planning & Development
	Verdure Hall C	KS on RS, GIS & Modeling
9:30-10:00	Coffee Break	
10:00-12:00	Verdure Hall A	PS on Soil & Water Processes
	Verdure Hall B	PS on Watershed Planning & Development
	Verdure Hall C	PS on RS, GIS & Modeling
12:00-13:30	Lunch	
13:30-15:00	Fairview Hall	Session for Young Scientists
15:00-15:30	Coffee Break	
15:30-16:30	Fairview Hall	Session for Young Scientists
16:30-17:00	Fairview Hall	Closing Ceremony
17:30-18:30	Dinner	

Sessions and Events

Wednesday 12 October 2016	
Opening Ceremony	
Chair: Guishan Yang	
Location: Fairview Hall	
8:30-8:40	Honored Guest Address
8:40-8:50	Welcoming Remarks
8:50-9:00	Group Photo
9:00-9:30	Coffee Break
Keynote Session	
Chair: Hui Lin	
Location: Fairview Hall	
9:30-10:15	Bojie Fu Research Center for Eco-Environmental Sciences, CAS To be updated
10:15-11:00	John M. Melack University of California, Santa Barbara, USA Inland waters and the carbon cycle
11:00-11:45	Chenghu Zhou Institute of Geographic Sciences and Natural Resources Research, CAS To be updated
12:00-13:30	Lunch (Baijia Lake All Day Dining Restaurant)

Wednesday 12 October 2016

Keynote Session on Soil & Water Processes

Chair: Stephan Weise

Location: Verdure Hall A

- 13:30-14:00 Michael Rode
The Helmholtz Association, Germany
Sensors in the stream: the high-frequency wave of the present
- 14:00-14:30 Zhongbo Yu
Hohai University, China
Modern approach for addressing challenges of hydrologic science in large river basins
- 14:30-15:00 Xiaoyan Li
Beijing Normal University, China
Climate/land-use changes and ecohydrology in high-altitude Qinghai lake watershed on the Qinghai-Tibet Plateau

15:00-15:30 Coffee Break

Panel Session on Soil & Water Processes

Chair: Qi Zhang

Location: Verdure Hall A

- 15:30-15:50 Xinhua Peng
Institute of Soil Science, CAS
Coupled hydrological processes and solute transport across scales at Sunjia watershed, Red Soil CZO: A primary study
- 15:50-16:10 Xianli Xu
Institute of Subtropical Agriculture, CAS
Budvko framework of catchment water-energy balance: Enhancement and Application
- 16:10-16:30 Junfeng Gao
Nanjing Institute of Geography and Limnology, CAS
Watershed Auaqtic Ecoregions And Its Applications
- 16:30-16:50 Wenchao Ma
University of Tsukuba, Japan
Comparison of catchment water Mean Transit Time considering temporal variability and spatial controlling factors
- 16:50-17:10 Jizheng Pan
Nanjing Institute of Geography and Limnology, CAS
Ecological restoration of wetlands in TAIHU watershed
- 17:10-17:30 Yi Wang
Institute of Subtropical Agriculture, CAS
Does soil biogenic elemental stoichiometry relate to catchment nutrient loadings

17:30-18:30 Dinner (Baijia Lake All Day Dining Restaurant)

Wednesday 12 October 2016

Keynote Session on Watershed Planning & Development

Chair: Xianjin Huang

Location: Verdure Hall B

- 13:30-14:00 Wenzhong Zhang
Institute of Geographic Sciences and Natural Resources Research, CAS
从居民视角看中国宜居城市建设的问题与成效
- 14:00-14:30 Darryl Low Choy
Griffith University, Australia
Towards sustainable and resilient catchments: achieving water sensitive urbanism through an integrated science informed planning approach

14:30-15:00 Coffee Break

Panel Session on Watershed Planning & Development

Chair: Jing Luo

Location: Verdure Hall B

- 15:00-15:20 Xuejun Duan
Nanjing Institute of Geography and Limnology, CAS
长江经济带建设生态文明示范带的思考
- 15:20-15:50 Zhongmin Xu
Cold and Arid Regions Environmental and Engineering Research Institute, CAS
水利万物而不争的发展理论
- 15:50-16:10 Yuqi Lu
Nanjing Normal University, China
长江流域双核结构的统计分析模型
- 16:10-16:30 Dong Liu
Ministry of Environmental Protection, China
Ecological security pattern construction in the Yangtze River Economic Belt based on ecological protection redlines
- 16:30-16:50 Daniel Martin Nover
University of California, Merced, USA
Assessing functional flows at a global scale: Implications for environmental flow management strategies
- 16:50-17:10 Jinliao He
Nanjing University, China
Competition pattern and integration development of inland ports of Yangtze River in Jiangsu province
- 17:10-17:30 To be updated

17:30-18:30 Dinner (Baijia Lake All Day Dining Restaurant)

Wednesday 12 October 2016

Keynote Session on RS, GIS & Modeling

Chair: Xin Li

Location: Verdure Hall C

- | | |
|-------------|---|
| 13:30-14:00 | Hui Lin
The Chinese University of Hong Kong
To be updated |
| 14:00-14:30 | Adrian D Werner
Flinders University, Australia
Density-dependent flow effects on floodplain hydrology: Freshwater lenses of the Murray River, Australia |

14:30-15:00 Coffee Break

Panel Session on RS, GIS & Modeling

Chair: Adrian D. Werner

Location: Verdure Hall C

- | | |
|-------------|--|
| 15:00-15:20 | Zongming Wang
Northeast Institute of Geography and Agroecology, CAS
Changes in multiple ecosystem services in the Sanjiang Plain of China |
| 15:20-15:40 | Mingguo Ma
Southwest University, China
Quantitative water resources assessment of Qinghai Lake basin using water balance model |
| 15:40-16:00 | Di Long
Tsinghua University, China
Monitoring and modeling of terrestrial water storage changes from GRACE satellites and an improved hydrological model over the world's third pole |
| 16:00-16:20 | Ronghua Ma
Nanjing Institute of Geography and Limnology, CAS
Response of algal biomass to land-use change: an example from Chaohu Lake basin, China |
| 16:20-16:40 | To be updated
Nanjing University, China
Hydrological response to urbanization in Qinhuai River basin of Southeastern China |
| 16:40-17:00 | Xiaoxiang Zhang
Hohai University, China
GIS-based Real-time Hydrological Modeling in Small Watershed |
| 17:00-17:20 | Yanlian Zhou
Nanjing University, China
Parameter optimization for ecological models based on remote sensing and carbon and water fluxes data |

17:30-18:30 Dinner (Baijia Lake All Day Dining Restaurant)

Thursday 13 October 2016

Keynote Session on Soil & Water Processes

Chair: Michael Rode / Ling Li

Location: Verdure Hall A

- 8:30-9:00 Stephan Weise
 The Helmholtz Association, Germany
 Tracing the water cycle with isotopes
- 9:00-9:30 Qi Zhang
 Nanjing Institute of Geography and Limnology, CAS
 Hydrology of China's largest freshwater lake (Poyang Lake) – overview of previous
 work and future challenges

9:30-10:00 Coffee Break

Panel Session on Soil & Water Processes

Chair: Qing Zhu

Location: Verdure Hall A

- 10:00-10:20 Yong Li
 Institute of Subtropical Agriculture, CAS
 CNMM: a catchment environmental model for managing water quality and
 greenhouse gas emissions
- 10:20-10:40 Haishen Lv
 Hohai University, China
 The comprehensive experiment and simulation of water and soil process in
 Nanxiaohe Watershed
- 10:40-11:00 Xingwei Chen
 Fujian Normal University, China
 The temporal and spatial characteristics of nitrate transfer and fate in a Canadian
 Shield catchment modeling with an enhanced SWAT
- 11:00-11:20 Ligang Xu
 Nanjing Institute of Geography and Limnology, CAS
 Hydrological processes and its vegetation responses in wetlands of Poyang Lake
- 11:20-11:40 Chen Lin
 Nanjing Institute of Geography and Limnology, CAS
 Relationship between watershed non-point source (NPS) pollution and Lake
 Phosphorus accumulation: A case study in Hongze Lake
- 11:40-12:00 Renhua Yan
 Southwest University, China
 WALRUS-paddy model for simulating the hydrological processes of lowland polders
 with paddy fields and pumping stations

12:00-13:30 Lunch (Baijia Lake All Day Dining Restaurant)

Thursday 13 October 2016

Keynote Session on Watershed Planning & Development

Chair: Darryl Low Choy

Location: Verdure Hall B

- | | |
|-----------|--|
| 8:30-9:00 | Xianjin Huang
Nanjing University, China
Hu sub-line and the optimization of the spatial pattern in the Yangtze River economic belt |
| 9:00-9:30 | Wen Chen
Nanjing Institute of Geography and Limnology, CAS
Sustainable development of the Green Village in the mountain—Example of Chen Zhuang Villiage in the upper reach of Taihu Lake |

9:30-10:00 Coffee Break

Panel Session on Watershed Planning & Development

Chair: Wen Chen

Location: Verdure Hall B

- | | |
|-------------|--|
| 10:00-10:20 | Shuang Chen
Nanjing Institute of Geography and Limnology, CAS
Urban development pattern optimization for ecospace conservation |
| 10:20-10:40 | Zhaohua Li
Hubei University, China
长江中游地区水环境问题之解析 |
| 10:40-11:00 | Ling Yin
Shenzhen Institutes of Advanced Technology, CAS
To be updated |
| 11:00-11:20 | Jie Guo
Nanjing Agriculture University, China
A review of methods for weighting and aggregating sustainability indicators |
| 11:20-11:40 | Shengrun Zhang
Nanjing University of Aeronautics and Astronautics, China
To be updated |
| 11:40-12:00 | Yu Tao
Nanjing Agriculture University
A brief overview of China's urbanization and environmental performance across prefecture-level cities during the years 2000 – 2010 |

12:00-13:30 Lunch (Baijia Lake All Day Dining Restaurant)



Thursday 13 October 2016

Keynote Session on RS, GIS & Modeling

Chair: Ronghua Ma

Location: Verdure Hall C

- | | |
|-----------|--|
| 8:30-9:00 | Xin Li
Cold and Arid Regions Environmental and Engineering Research Institute, CAS
To be updated |
| 9:00-9:30 | Bingfang Wu
Institute of Remote Sensing and Digital Earth, CAS
Basin-wide water consumption management |

9:30-10:00 Coffee Break

Panel Session on RS, GIS & Modeling

Chair: Bingfang Wu

Location: Verdure Hall C

- | | |
|-------------|---|
| 10:00-10:20 | Wenping Yuan
Sun Yat-sen University, China
Global estimate of evapotranspiration and gross primary production based on satellite data |
| 10:20-10:40 | Chaoyang Wu
Institute of Remote Sensing and Digital Earth, CAS
Remote sensing of plant phenology and its implications on carbon sequestration |
| 10:40-11:00 | Guoqing Zhang
Institute of Tibetan Plateau Research, CAS
Lake evolution in large river basins in the Tibetan Plateau |
| 11:00-11:20 | Junli Li
Xinjiang Institute of Ecology and Geography, CAS
Spatio-temporal inland lake changes of Central Asia in the last 50 years and their responses to climate change |
| 11:20-11:40 | Hongtao Duan
Nanjing Institute of Geography and Limnology, CAS
Climate and human induced suspended particulate matter concentrations changes in Lake Hongze: Observations from Aqua/MODIS |
| 11:40-12:00 | Longhua He
Nanjing Institute of Geography and Limnology, CAS
Remote sensing and field monitoring of rice planting and change in Qinhuai River Valley |

12:00-13:30 Lunch (Baijia Lake All Day Dining Restaurant)

Thursday 13 October 2016	
Sessions for Young Scientists	
Chairs: Zongming Wang, Ligang Xu	
Location: Fairview Hall	
13:30-13:45	Guizhang Zhao Research on hydraulic links between lake and groundwater in the shallow floodplain Poyang Lake
13:45-14:00	Aifang Cheng Baoji University of Arts and Sciences Runoff response to climate change in the upper reaches of the Heihe River basin, Northwest China
14:00-14:15	Xuguang Tang Nanjing Institute of Geography and Limnology, CAS Potential of MODIS data to track the variability in water-use efficiency of terrestrial ecosystems
14:15-14:30	Fei Li Nanjing Institute of Geography and Limnology, CAS Crop production benefits of climate warming: Evidences from the Huaihe Plain of China
14:30-14:45	Wei Wan Tsinghua University Some recent work on lakes over the Tibetan Plateau
14:45-15:00	Wenjun Chen Nanjing Institute of Geography and Limnology, CAS Water quality modelling for typical rural watershed in Mountain Mao Region based on WASP model
15:00-15:30	Coffee Break
15:30-15:40	Hui Cao Institute of Geographic Sciences and Natural Resources Research, CAS Urban expansion and its impact on land use pattern in Xishuangbanna since the reform and opening up of China
15:40-15:50	Changyan Wu Nanjing University Economic transition, spatial development and urban land use efficiency in the Yangtze River Delta, China
15:50-16:00	Hao Meng Nanjing University Evolution of spatial pattern of textile in Pan-Yangtze River Delta at processing industry chain

Thursday 13 October 2016	
16:00-16:10	Pei Zhou Xiamen University, China Modeling Nutrient Sources, Transport and Management Strategies in a Coastal Watershed, Southeast China
16:10-16:20	Zhengsong Lin China University of Geosciences Analysis of evaluation and driving force of ecosystem service value in the upper reaches of the Yangtze River
16:20-16:30	Junfeng Xiong Nanjing University of Information Science & Technology, China Spatio-temporal pattern evolution of NPS particulate phosphorus Load and identification of key source regions in Chaohu watershed
Closing Ceremony Chair: Qi Zhang Location: Fairview Hall	
16:30-17:00	Closing Ceremony
17:30-18:00	Dinner (Baijia Lake All Day Dining Restaurant)

Symposium Venue

Crystal Blue Bay Apartment Hotel (中国 南京 水晶蓝湾公寓酒店)

Address No.1568 Shuanglong Avenue, Jiangning, Nanjing (地址：江宁区双龙大道 1568 号)

Tel 86 25 86157788 Fax 86 25 86157789



How to get to the symposium venue

The Railway Stations ▶ Symposium Venue

The taxi cost from Nanjing South Railway Station will be about 18 CNY and Nanjing Railway station will be about 60 CNY.

By metro:

Nanjing South Railway Station → Metro Line 1 (6:16 - 23:53) → BAIJIA Lake Station → Walking 500 meters → Crystal Blue Bay Apartment Hotel;

Nanjing Railway Station → Metro Line 1 (5:46 - 23:23) → BAIJIA Lake Station → Walking 500 meters → Crystal Blue Bay Apartment Hotel.

The Airport ▶ Symposium Venue

Lukou International Airport is 29 km from the symposium venue. The taxi cost from the airport will be about 85 CNY.

By metro:

The airport → Metro Line S1 (6:40 - 22:00) → Nanjing South Railway Station → Metro Line 1 (6:16 - 23:53) → BAIJIA Lake Station → Walking 500 meters → Crystal Blue Bay Apartment Hotel.

Nanjing Metro Map





ORGANIZER

Nanjing Institute of Geography and
Limnology, Chinese Academy of Sciences



CO-ORGANIZERS

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Environment in the Yangtze Basin
Yangtze Branch of the Geographic Society of China
Resources and Geography Committee of
China Society of Natural Resources
College of Geographic and Oceanographic
Sciences, Nanjing University
Limnology and Wetlands Branch of the
Geographic Society of China