

14th Annual Meeting

Conference agenda

Nanjing 2026

October 17-18, 2026

Nanjing University of Information Science
and Technology

Conference agenda

CYWater Annual Conference 2026
17-18 October 2026 | Nanjing, China

All times are local Nanjing time. Programme reproduced from Attachments 1 and 2 of the Third Announcement, dated 15 October 2026.

The detailed timetable is followed by the complete poster list. Session times include the individual presentation slots shown below.

17 October 2026

Venue: Lecture Hall, Zone D, Linjiang Building (Information Science and Technology Building), NUIST

08:30-10:15	Opening Ceremony and Keynote Session I Chair: Huan Wu
08:30-08:40	Opening address President Haishan Chen Nanjing University of Information Science and Technology
08:40-08:55	Unveiling of the “Joint Research Centre on Climate Change Response and Sustainable Development” Distinguished leaders and guests Nanjing University of Information Science and Technology & University of Birmingham
08:55-09:00	Group photo
09:00-09:25	KEYNOTE PRESENTATION A Generalized Resource-Constrained Framework for Estimating Ecosystem Water and Carbon Fluxes Prof. Lu Zhang Wuhan University
09:25-09:50	KEYNOTE PRESENTATION Australia's Murray-Darling Basin Plan: Achievements, Challenges and the Future Prof. Qianjun Wang Hohai University
09:50-10:15	KEYNOTE PRESENTATION Application of VIC model in China: long-term hydrological data simulation and flooding prediction Prof. Aihui Wang Institute of Atmospheric Physics, Chinese Academy of Sciences
10:15-10:30	Coffee break
10:30-12:00	Water Cycle and Extreme Hydrometeorological Forecasting under a Changing Environment I Conveners: Shanshui Yuan, Yiwen Mei
10:30-10:48	FEATURED PRESENTATION Coordinated allocation of multiple water sources and water-adaptive regulation under a changing environment (in Chinese) Prof. Xiaojun Wang Nanjing Hydraulic Research Institute
10:48-11:06	FEATURED PRESENTATION Impacts of different types of compound heat-drought events on agricultural drought (in Chinese) Prof. Zengchao Hao Beijing Normal University

10:30-12:00	Water Cycle and Extreme Hydrometeorological Forecasting under a Changing Environment I Conveners: Shanshui Yuan, Yiwen Mei
11:06-11:24	FEATURED PRESENTATION Reverse fusion of multi-source hydrometeorological data and long-sequence spatiotemporal reconstruction (in Chinese) Prof. Liujun Zhu Hohai University
11:24-11:36	High-frequency monitoring of surface water bodies and evaporation estimation on the Loess Plateau (in Chinese) Assoc. Prof. Xianhong Xie Beijing Normal University
11:36-11:48	Statistical post-processing of precipitation forecasts accounting for spatiotemporal structure (in Chinese) Assoc. Prof. Yuan Li Hohai University
11:48-12:00	Hydrological process simulation and water security risk identification in transboundary rivers (in Chinese) Assoc. Prof. Kai Ma Yunnan University
12:00-13:30	Lunch and break
13:30-15:00	Water Cycle and Extreme Hydrometeorological Forecasting under a Changing Environment II Conveners: Gang Zhao, Peng Ji
13:30-13:48	FEATURED PRESENTATION Land-atmosphere coupling in compound humid-heat events: A case study of the middle and lower Yangtze River basin (in Chinese) Prof. Jiangfeng Wei Nanjing University of Information Science and Technology
13:48-14:06	FEATURED PRESENTATION Divergent hydroclimatic hazards reshape SDG achievements across the Asian Water Tower Asst. Prof. Rashid Mahmood Asian Institute of Technology, Bangkok, Thailand
14:06-14:24	FEATURED PRESENTATION Simulation and prediction of irrigated agricultural returns under drought (in Chinese) Assoc. Prof. Shulei Zhang Sun Yat-sen University
14:24-14:36	Progress in the second-phase development of the intelligent forecasting module of the Anlan System drought task force (in Chinese) Assoc. Prof. Zhenchen Liu Hohai University
14:36-14:48	Hydroclimatic extremes reshape the timing and cost-effectiveness of variable renewable energy deployment in the Lower Mekong Basin Assoc. Prof. Jingkai Xie Hohai University

13:30-15:00	Water Cycle and Extreme Hydrometeorological Forecasting under a Changing Environment II Conveners: Gang Zhao, Peng Ji
14:48-15:00	Nonstationary drought propagation and dynamic thresholds in the Dongting Lake basin under a changing environment (in Chinese) Assoc. Prof. Tao Peng China Three Gorges University
15:00-15:15	Coffee break
15:15-17:09	Ecohydrological Processes and Coordinated Allocation of Water Resources Conveners: Lei Cheng, Zhenzhong Zeng, Weili Duan, Baoqing Zhang, Hongyan Wang
15:15-15:33	FEATURED PRESENTATION Multi-source satellite remote sensing observations of large-scale surface water dynamics (in Chinese) Prof. Zhenzhong Zeng Southern University of Science and Technology
15:33-15:51	FEATURED PRESENTATION Cumulative thermal effects of giant cascade reservoir operations (in Chinese) Prof. Meixiu Yu Hohai University
15:51-16:09	FEATURED PRESENTATION Forty years of full-depth temperature profiles reveal the formation mechanism of metalimnetic heatwaves in a stratified reservoir (in Chinese) Assoc. Prof. Chenxi Mi Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences
16:09-16:21	Responses of water and carbon fluxes to natural stress and anthropogenic restoration (in Chinese) Lect. Yi Liu Guangxi University
16:21-16:33	Observation-constrained attribution of vegetation effects on soil moisture dynamics using explainable ML Assoc. Prof. Miao Zhang Nanjing University of Information Science and Technology
16:33-16:45	Improving land surface hydrological simulation with remote sensing vegetation and radiation data: From improved evapotranspiration partitioning to continental-scale hydrological response (in Chinese) Dr. Dawei Peng Tsinghua University
16:45-16:57	An economic approach to optimal allocation of irrigation water in groundwater overexploitation areas (in Chinese) Assoc. Prof. Xueliang Zhang China Agricultural University
16:57-17:09	Multi-dimensional coordinated optimal allocation of complex water resource systems considering reclaimed water (in Chinese) Lect. Jing Liu Nanjing University of Information Science and Technology
17:09-19:30	Banquet

18 October 2026

Venue: Lecture Hall, Zone D, Linjiang Building (Information Science and Technology Building), NUIST

08:30-09:45	Keynote Session II Chair: Na Yang
08:30-08:55	KEYNOTE PRESENTATION Water cycle observation, modeling, and prediction (in Chinese) Prof. Dawen Yang Tsinghua University
08:55-09:20	KEYNOTE PRESENTATION Mitigating water conflicts through multi-parametric water quality sensor networks and advanced adaptive modelling Prof. Stefan Krause University of Birmingham
09:20-09:45	KEYNOTE PRESENTATION Cascading hydroclimatic extremes: from drought propagation to compound drought-heat events to riverine heatwaves Prof. David M. Hannah University of Birmingham
09:45-09:55	Coffee break
09:55-12:07	Watershed Water-Sediment Evolution, Safe and Resilient Water Networks, and Engineering Control Conveners: Li Chen, Dong Chen, Saiyu Yuan, Jingming Hou, Yuhan Yang
09:55-10:13	FEATURED PRESENTATION Trends in runoff and sediment evolution in the Yellow River and coping strategies (in Chinese) Prof. Guoqing Wang Nanjing Hydraulic Research Institute
10:13-10:31	FEATURED PRESENTATION Characteristics of water-sediment evolution and changes in their relationship in the upper and middle reaches of the Yellow River (in Chinese) Prof. Yunfei Gao Yellow River Basin Soil and Water Conservation Ecological Environment Monitoring Center
10:31-10:49	FEATURED PRESENTATION Research progress on intelligent simulation methods for flooding processes (in Chinese) Prof. Jingming Hou Xi'an University of Technology
10:49-11:07	FEATURED PRESENTATION A hydrodynamic model engine for Digital Twin Water Networks and its applications (in Chinese) Prof. Dong Xu Hohai University
11:07-11:25	FEATURED PRESENTATION Research on the Scouring and Silting Evolution Patterns of Poyang Lake under Continuous Mainstream Scouring and the Effects of Flood-Drought Regulation Snr Eng. Chaofan Lyu Changjiang River Scientific Research Institute, Changjiang Water Resources Commission

09:55-12:07	Watershed Water-Sediment Evolution, Safe and Resilient Water Networks, and Engineering Control Conveners: Li Chen, Dong Chen, Saiyu Yuan, Jingming Hou, Yuhan Yang
11:25-11:43	FEATURED PRESENTATION Flood simulation and exposure analysis of watershed-city-community systems under different urban development patterns (in Chinese) Assoc. Prof. Ming Zhong Sun Yat-sen University
11:43-11:55	Dual degradation risk assessment of permafrost degradation and topsoil thinning in the Songhua River basin of the black soil region under future warming and wetting (in Chinese) Dr. Beibei Ding Tsinghua University
11:55-12:07	Sediment yield and source evolution in small watersheds of the Loess Plateau and implications for rainstorm risk control (in Chinese) Dr. Chengbo Shu Northwest A&F University
12:07-13:30	Lunch and break
13:30-15:30	Remote Sensing-Physics-Intelligence Integrated Modeling and Digital Twin Water Networks Conveners: Shulei Zhang, Xudong Zhou, Jie Wang, Feng Ma
13:30-13:48	FEATURED PRESENTATION Digital Twin Water Networks and the national water network dispatching system (in Chinese) Prof. Yuntao Ye China Institute of Water Resources and Hydropower Research
13:48-14:06	FEATURED PRESENTATION Large language models empowering hydrological model parameter calibration (in Chinese) Assoc. Prof. Xiongpeng Tang Beijing Normal University
14:06-14:24	FEATURED PRESENTATION Building a “water flow engine” for flood simulation in the CoLM land surface model: Efficient numerical solution of the two-dimensional shallow water equations (in Chinese) Dr. Pan Zhang Sun Yat-sen University
14:24-14:42	FEATURED PRESENTATION An unstructured Voronoi mesh framework for large scale hydrologic and land surface models Assoc. Prof. Chang Liao Institute of Atmospheric Physics, Chinese Academy of Sciences
14:42-14:54	Sensitivity analysis and optimization of water and carbon flux parameters in land surface models under remote sensing-physics-intelligence integration (in Chinese) Assoc. Prof. Heng Wang Northwest University
14:54-15:06	RIEMS-Hydro: A Process-Based End-to-End Differentiable Distributed Hydrological Model from Precipitation to River Discharge and Stage Snr Eng. Hui Zheng Institute of Atmospheric Physics, Chinese Academy of Sciences

13:30-15:30	Remote Sensing-Physics-Intelligence Integrated Modeling and Digital Twin Water Networks Conveners: Shulei Zhang, Xudong Zhou, Jie Wang, Feng Ma
15:06-15:18	Development and evaluation of a GRACE terrestrial water storage data assimilation system based on the Noah-MP multi-physics ensemble (in Chinese) Asst. Res. Wenli Fei Institute of Applied Ecology, Chinese Academy of Sciences
15:18-15:30	Multi-layer soil moisture estimation and AI assimilation based on physics-constrained deep learning (in Chinese) Dr. Tuantuan Zhang Xi'an University of Technology
15:30-15:40	Coffee break
15:40-17:01	Forum on Interdisciplinary Frontiers and Outstanding Young Talent for Young Scholars (flash talks) Conveners: Guoqiang Tang, Menghao Wang, Yangchen Lai
15:40-15:43	Satellite-gauge precipitation information fusion for real-time monitoring (in Chinese) Lingjie Li Nanjing Hydraulic Research Institute
15:43-15:46	Modeling and application of skin effects in well tests for confined aquifers (in Chinese) Chen Wang Nanjing University of Information Science and Technology
15:46-15:49	How credible are precipitation estimates for trend analysis? A trend-capturing skill framework and its application to the Yangtze River Basin Zhehui Shen Nanjing Forestry University
15:49-15:52	Impacts of flood generation processes on socioeconomic losses (in Chinese) Jiarui Yu Beijing Normal University
15:52-15:55	External moisture deficit amplifies drought risk in China (in Chinese) Gang Wang Beijing Normal University (Zhuhai)
15:55-15:58	Urban resilience assessment of typhoon disaster chains in Fujian Province (in Chinese) Xiaoliu Yang Tsinghua University
15:58-16:01	Warming and atmospheric drying amplify soil-moisture control on terrestrial energy partitioning Enze Song Huazhong University of Science and Technology
16:01-16:04	Responses of vegetation greenness to soil and atmospheric drought across multiple timescales (in Chinese) Zijun Wang Wuhan University
16:04-16:07	Assessment of the ecological water replenishment water-food nexus in groundwater-overexploited agricultural areas of the North China Plain based on an improved SWAT model (in Chinese) Jiayao Zhu China Agricultural University

15:40-17:01	Forum on Interdisciplinary Frontiers and Outstanding Young Talent for Young Scholars (flash talks) Conveners: Guoqiang Tang, Menghao Wang, Yangchen Lai
16:07-16:10	Uncertainty in runoff routing structure during daily-to-hourly scale conversion and its impact on design flood peaks (in Chinese) Tiexiang Wang East China Normal University
16:10-16:13	Multi-pathway accounting and terrain effects reshaping greenhouse gas assessment of hydropower (in Chinese) Xudong Zhou Nanjing Hydraulic Research Institute
16:13-16:16	A flood forecasting method coupling the CE-QUAL-W2 and SI-LA-PINN models (in Chinese) Mingrui Shi Yangzhou University
16:16-16:19	Spatial organization of anomalous precipitation over northern Jiangsu shaped by large-scale circulation (in Chinese) Ying Xu Yangzhou University
16:19-16:22	Application of acoustic tomography to monitoring at the Datong hydrological station on the Yangtze River (in Chinese) Shixiong Hu Second Institute of Oceanography, Ministry of Natural Resources
16:22-16:25	Statistical post-processing of precipitation forecasts based on generative AI models (in Chinese) Wentao Li Hohai University
16:25-16:28	Large-sample watershed hydrological simulation based on AI and satellite precipitation data (in Chinese) Zixuan Huang Wuhan University
16:28-16:31	Aquifer freshwater storage and extraction for water resource security (in Chinese) Hongkai Li Eastern Institute of Technology, Ningbo
16:31-16:34	Simulation of ecological water replenishment regulation for a shallow lake wetland in Jilin Jiashutai Lake adapted to the Siberian crane (in Chinese) Fenjie Shang Ningxia University (China Institute of Water Resources and Hydropower Research)
16:34-16:37	Anthropogenic warming reshapes the seasonal timing of global river runoff (in Chinese) Yijia Ren Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
16:37-16:40	Constraining key hydrological fluxes in ungauged regions (in Chinese) Xiangyong Lei Fujian Normal University
16:40-16:43	Catchment hydrologic function is widely time-variant. Ying Yan Tsinghua University
16:43-16:46	Lake warming on the Tibetan Plateau and lake-atmosphere heatwave responses (in Chinese) Yuanlin Qiu Wuhan University

15:40-17:01	Forum on Interdisciplinary Frontiers and Outstanding Young Talent for Young Scholars (flash talks) Conveners: Guoqiang Tang, Menghao Wang, Yangchen Lai
16:46-16:49	Upstream evaporative moisture sources anchor strong persistent heavy precipitation events over southeastern Tibetan plateau Ruiyu Zhao Tsinghua University
16:49-16:52	Subseasonal-to-seasonal basin runoff and flood forecasting combining hydrological and statistical models (in Chinese) Lingfeng Li Guangdong Climate Center
16:52-16:55	Sentinel-1 soil moisture retrieval with machine learning in heterogeneous environments: Spatial differences from model selection to feature contribution (in Chinese) Yuzhu Wang Nanjing University of Information Science and Technology
16:55-16:58	Impacts of climate change on water and carbon fluxes of typical vegetation in the Yellow River basin (in Chinese) Fei Gao Northwest A&F University
16:58-17:01	Reconstruction of hydrological model response mechanisms and evaluation systems based on dynamic catchment characteristics (in Chinese) Tian Lan Chang'an University
17:01-17:15	Break
17:15-18:30	Keynote Session III and Closing Ceremony Chair: Yanzhong Li
17:15-17:40	KEYNOTE PRESENTATION How do watersheds respond to change? A large-sample study from rainfall-runoff to water quality (in Chinese) Assoc. Prof. Danlu Guo Australian National University
17:40-18:05	KEYNOTE PRESENTATION Development, Evaluation, and Applications of Long-term Multiple Spatial Scale Hourly Precipitation Datasets in China Prof. Youlong Xia Nanjing University of Information Science and Technology
18:05-18:15	“CYWater Young Scientist Outstanding Presentation Award” ceremony Award presenter
18:15-18:30	Closing address Prof. Qiuhong Tang Tsinghua University
18:30-19:30	Dinner

Poster presentations

Posters should be in portrait orientation, 120 cm high and 90 cm wide. They will be printed by the organizers and displayed throughout the conference. Authors are kindly requested to send the electronic version of their poster to the organizing committee in advance.

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- 01 GlobalFlow30: A global flow-direction grid at 30 m resolution with observation-guided identification of endorheic drainage units**
Bin Zhang
Pan-Third Pole Environment Research Center, Lanzhou University
-
- 02 A flood forecasting method coupling the CE-QUAL-W2 and PINN models**
Mingrui Shi
Yangzhou University
-
- 03 Process-based three-layer synergistic optimal-allocation model for complex water resource systems considering reclaimed water**
Jing Liu
Nanjing University of Information Science and Technology
-
- 04 Variability of land water availability sensitivity to model resolution: disentangling the influences of runoff and soil water**
Xianghui Kong
Institute of Atmospheric Physics, University of Chinese Academy of Sciences
-
- 05 Causes and Impacts of Compound Floods of Heavy Rainstorm and Extreme Sea Level in Hong Kong**
Yangchen Lai
Nanjing University of Information Science and Technology
-
- 06 A 131-year evidence of more extreme and higher total amount of hourly precipitation in Hong Kong**
Yangchen Lai
Nanjing University of Information Science and Technology
-
- 07 Operational Land Data Assimilation Systems in North America and China: Development, Applications, and Future Pathways**
Yulong Xia
Nanjing University of Information Science and Technology
-
- 08 Hydrological multi-model ensemble forecasting based on dynamic weights (in Chinese)**
Dayang Li
Yancheng Institute of Technology
-
- 09 Pit-scale Inundation Hazard Screening Using UAV LiDAR, Hydrodynamic Simulation and Machine Learning**
Chenjin Huang
Sun Yat-sen University
-
- 10 Similar Mean Precipitation, Different Hourly Structures: Occurrence-Intensity Biases across Eight Gridded Products over China**
Linyue Zhang
Nanjing University of Information Science and Technology
-
- 11 Ten-day-scale water surface process reconstruction and regulation-storage characterization of regulation lakes along the eastern route of the South-to-North Water Diversion Project (in Chinese)**
Wenpeng Zhao
Yangzhou University
-

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- 12 Large-Scale Circulation Shapes the Spatial Organization of Anomalous Precipitation over Northern Jiangsu**
Ying Xu
Yangzhou University
-
- 13 Drought-flood transition events and socioeconomic exposure under climate change (in Chinese)**
Ruiting Huang
Guangdong University of Technology
-
- 14 Storm-Surge and Compound Flooding in the Minjiang Estuary**
Yongzhao Sun
Nanjing University of Information Science and Technology
-
- 15 Compound drivers and uneven impacts of global major floods from 2000 to 2018**
Yufan Zhang
Central China Normal University
-
- 16 Transmission of Extreme Precipitation Nonstationary to Peak Flows and Its Variability Across Catchments**
Meiling Zhang
Sun Yat-sen University
-
- 17 Assessment and application of tropical cyclone clustering in the South China Sea**
Yan Yan
Guangdong Ocean University
-
- 18 Identification of Similar Rainstorm-Flood Events in the Upper Yangtze River Constrained by Rainstorm Centroid Migration**
Jing Wang
Nanjing University of Information Science and Technology
-
- 19 Three-dimensional identification of drought-to-flood events in the Yangtze River basin: Daily event tracking and analysis of associated drivers**
Na Yang
Nanjing University of Information Science and Technology
-
- 20 Multi-dimensional responses and non-additive effects of global floods under multiple anthropogenic drivers (in Chinese)**
Bin Zhang
Yunnan University
-
- 21 Inferring Time-Varying Soil Hydraulic Properties from Hydrological Observations**
Meijun Li
Nanjing University of Information Science and Technology
-
- 22 Hydrological and cryospheric modelling of the Indus River basin (in Chinese)**
Zhijie Zhang
East China Normal University
-
- 23 Amplifying effect of antecedent soil temperature and moisture signals on subseasonal climate variability (in Chinese)**
Yue Chen
China University of Emergency Management
-
- 24 Drought Thresholds for Low Water-Use Efficiency Across Heatwave-Drought Propagation Pathways**
Rong Wu
Wuhan University
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