

Session 1**Topic: New Technology of Hydraulic Simulation I****Date: May 31, 2018****Venue: International Conference Hall, 13th floor of NHRI HQ Building (No. 223, Guangzhou Road)****Convener:** Xinghua Xie Tel: +8613813019310 Xin Wang Tel: +8613915943074

Time	Topic	Speaker	Chair
08:30 - 08:35	Session Kick-off		Xinghua Xie
08:35 - 08:55	CFD modeling of a tangential vortex intake using Open FOAM	Shu Ning Chan	Jing Peng IWHR
08:55 - 09:15	A numerical investigation of Reynolds number effects on the wind loads on cylindrical roofs	Tokiniaina Ricky Rajaoarimanga	
09:15 - 09:35	Scale-effect of flow-field and sediment size on scour at bridge pier with simple and complex pier geometry	Yifan Yang	Stefan Geert FHR
09:35 - 09:55	A combined hydrological and hydraulic model for flood prediction in South-Eastern hilly regions of Bangladesh applied to the Sangu River Basin	Arup Chakraborty	
09:55- 10:15	Tea Break		
10:15 – 10:35	Study on the flow characteristics of resting pools in vertical slot fishway	Xiaogang Wang	Stefan Geert FHR
10:35 - 10:55	Analysis of the mixing in the shallow and subtropical Tingalpa reservoir, Australia	Xinchen Wang	
10:55 - 11:15	Experimental study on hydrodynamic performance of baffle drop structures	Wenchuang Chen	Jing Peng IWHR
11:15 - 11:35	Prototype observation on the mechanical characteristics of the chamber anti-collision device of large ship lifts	Xin Wang	

11:35 - 11:55	Features of approaching flow upstream of cylinders in tandem arrangement based on PIV measurement	Pingping Yang /Huilan Zhang	
11:55 - 14:00	Lunch Break		
14:00- 14:05	Session Kick-off		Xin Wang
14:05- 14:25	Fluid-Structure Interaction study on hydraulic features of the whole fluid flow in a vertical axial pump and vibration performance of its blades	Yin Guojiang	Xinghua Xie NHRI Hong Zhang Griffith University
14:25 - 14:45	Operating behavior of Longma CFRD based on dam safety monitoring data	Serges Mendomo Meye	
14:45- 15:05	High-precision synchronous UTTM measuring system for flow depth and discharge in open channels	Zhigang Wang	
15:05 - 15:25	A novel wireless photoelectric propeller flow meter based on ZigBee digital transmission technology	Jun Wu /Yue jie Shu	
15:25 - 15:45	Tea Break		
15:45- 16:05	Mathematical modelling and numerical simulation of damage evolution process caused by inner water penetrating out from cracks of conduits through embankment dams	Qiong Pang	Hong Zhang Griffith University
16:05- 16:25	Dam break simulation by Weakly Compressible Smoothing Particle Hydrodynamic (WCSPH) method	Congfang Ai /Jinbo Lin	
16:25-16:45	Applying SMOS soil moisture data into the HBV distributed hydrologic model for flash flood	Nguyen Ngoc Tu	Xinghua Xie NHRI
16:45-17:05	Comparison of methods of determining bed shear stress in duct flows	Dake Chen	
17:05-17:25	Experimental aeration study on control valve of hydraulic driven shiplift	JiaoWang	

Session 2

Topic: New Technology of Hydraulic Simulation II

Date: May 31, 2018

Venue: Conference Hall 6, 3th floor of R&D Hotel

Convener: Shiping Ruan Tel: +8613951685658 Luchen Zhang Tel: +8615850511470

Time	Topic	Speaker	Chair
08:30 - 08:35	Session Kick-off		Shiping Ruan
08:35 - 08:55	Modelling of air demand of a spillway aerator with two-phase flow models	James Yang /Penghua Teng	Jianmin Zhang Sichuan University
08:55 - 09:15	Performance improvement of headworks: a case of Kalignadaki a hydropower plant through physical hydraulic modelling	Meg B. Bishwakarma	
09:15 - 09:35	Hydraulic characteristics of free overall in rough and steep rectangular channel	Chao Liu /Li Naiwen	James Yang KTH
09:35 - 09:55	The study for drainage enhancement of the lower Thachin River in Thailand by cut-off	Krittikorn Thanawisitsawat	
09:55- 10:15	Tea Break		
10:15 – 10:35	PIV analysis and high speed photographic observation of cavitating flow field behind circular multi-orifice plates	Zhiyong Dong	James Yang KTH
10:35 - 10:55	Air demand due to flood discharges at Moforsen dam - CFD modelling with field measurements	Penghua Teng	
10:55 - 11:15	Application of LSPIV to environmental flows in laboratory and field cases	Shiping Ruan	

11:15 - 11:35	3D Modelling of Offshore Sandbank Dynamics	Stephen Clee	Jianmin Zhang Sichuan University
11:35 - 11:55	Energy dissipation of skimming flow in ski-jump-step spill way	Shangtuo Qian	
11:55 - 14:00	Lunch Break		
14:00- 14:05	Session Kick-off		Luchen Zhang
14:05- 14:25	Flow characteristics and air induction of free-falling water jets of various shapes	Yiyi Ma /Jiafang Wei	Xiaogang Wang NHRI
14:25 - 14:45	Analysis of longterm hydrological changes induced by anthropogenic and climatic changes in the Guanting basin using the SWAT model	Gebdang B. Ruben	
14:45- 15:05	Cavitation-silt erosion with considering viscosity of sand suspensions	Yu Wang	Carl-Oscar Nilsson Sydkraft Hydropower AB
15:05 - 15:25	Thermal effect on the failure of hydraulic concrete structures under high velocity flow cavitation	Wenxun Qian /Yang He	
15:25 - 15:45	Tea Break		
15:45- 16:05	Prediction method of field vibration induced by flood discharge of high dam	Luchen Zhang	Carl-Oscar Nilsson Sydkraft Hydropower AB
16:05- 16:25	Fluctuating pressure characteristics of different flood discharge types in MHSJ stilling basin	Zhipan Niu	
16:25-16:45	Multiphase sloshing and interfacial wave interaction with a submersed block	Obai Kargbo	Xiaogang Wang NHRI
16:45-17:05	Numerical analyses of the holistic hydraulic loads characteristics of high water-head plane gate	Jinxiong Zhang /Yuchen Deng	
17:05-17:25	Flow separation in the hydraulic-jump-stepped spillway	Yu Zhou	

Session 3

Topic: New Technology of River Engineering Simulation I

Date: May 31, 2018

Venue: Conference Hall 4, 3th floor of R&D Hotel

Convener: Ming Zhang Tel: +8613809020730 Jinxiao Zhao Tel: +8617314952869

Time	Topic	Speaker	Chair
08:30 - 08:35	Session Kick-off		Ming Zhang
08:35 - 08:55	Monitoring streambed elevation continuously	Daniele Tonina	Pei Xin Hohai University
08:55 - 09:15	Sensitivity and precision analysis of an automated grain sizing method for gravel bed	Kehan Huang/ Mengzhen Xu	
09:15 - 09:35	The effect of bottom slope discontinuity on numerical solution of the Saint Venant equations	Ben R. Hodges/ Chengwei Yu	Sven Wurms BAW
09:35 - 09:55	Development of an autonomous stream gage based on advanced stereo LSPIV techniques	Qian Liao	
09:55- 10:15	Tea Break		
10:15 – 10:35	Influence of bed elevation discordance onto the flow patterns in an open-channel confluence	Pedro Xavier Ramos	Sven Wurms BAW
10:35 - 10:55	Observation of Ice regime and safe dispatch research on South-to-North Water Diversion Middle Route project in winter	Wengang Duan	
10:55 - 11:15	Flood vulnerability analyses using GIS technique: a case study for the 2017 flood event in Bangladesh	Mahfuzur Rahman	Pei Xin Hohai University
11:15 - 11:35	Lake circulation measurement with Large-scale particle tracking velocimetry and GPS drifters	Shengshu Sun	

11:35 - 11:55	A study on the coupling simulation technique of waves and tides	Maowen Chen	
11:55 - 14:00	Lunch Break		
14:00- 14:05	Session Kick-off		Jinxiao Zhao
14:05- 14:25	Field measurement of turbidity currents in reservoir and bathymetry analysis	Ruidong An	Yonghui Zhu CRSRI Ralph Budwig University of Idaho
14:25 - 14:45	Development of desiccation cracks in a physical model of undisturbed expansive clay slope subjected to cyclic wetting and drying	Andrew C. Amenuvor	
14:45- 15:05	Flume physical model design and verification of saltwater intrusion	Yugui Yang	
15:05 - 15:25	Research and application of bed load transport monitoring system based on image recognition technology	Ang Gao	
15:25 - 15:45	Tea Break		
15:45- 16:05	Comparison of levenberg marquardt and conjugate gradient descent optimization methods for simulation of streamflow using artificial neural network	Bafithile Thabo Michael	Ralph Budwig University of Idaho
16:05- 16:25	Numerical simulation study on the aeration and diffusion of aerated water jet based on SPH method	Hua Zhang/ Guicheng He	
16:25-16:45	Force Analysis of the Temperature-Control Curtain in a deep Stratified Reservoir	Wei He	Yonghui Zhu CRSRI
16:45-17:05	Fuzzy clustering prediction on the influence of high dam discharge given to the habitat of downstream bank	Yongfei Qi	
17:05-17:25	TBC		

Session 4

Topic: New Technology of River Engineering Simulation II

Date: May 31, 2018

Venue: Conference Hall 5, 3th floor of R&D Hotel

Convener: Gensheng Zhao Tel: +8613813821636 Jinde Gu Tel: +8615250963516

Time	Topic	Speaker	Chair
08:30 - 08:35	Session Kick-off		Jinde Gu
08:35 - 08:55	Shanghai flows: a web-based data-stakeholder interface for water infrastructure policy support; an exploration into international applicability, focus on Shanghai	Ties Rijcken	Alessio Radice Politecnico di Milano
08:55 - 09:15	Application of data assimilation based on particle filter algorithm on simulating hydrodynamics in the micro-model of the lower yellow river	Minghong Chen/ Juanjuan Pang	
09:15 - 09:35	Flanders maritime laboratory, new large scale facilities for towing tank and wave basin research	Stefan Geerts	Gensheng Zhao NHRI
09:35 - 09:55	Mitigation of tsunami bore induced pressures on a vertical wall with a dike	Zhonghou Xu	
09:55- 10:15	Tea Break		
10:15 – 10:35	Application of UAV Based LiDAR, Ortho/Oblique Photography Techniques in Flood Modelling (提前)	Bingyao Li/ Jingming Hou	Gensheng Zhao NHRI
10:35 - 10:55	Experimental study on fluctuation degree and surface form resistance of riverbed	Yinjun Zhou	
10:55 - 11:15	Study on the similar scale of the physical model of salt tide	Fei Yuan	

11:15 - 11:35	Oscillations within a circular harbor over an island	Ze Eyezo'o Giresse Stanis	Alessio Radice Politecnico di Milano
11:35 - 11:55	Study on the interaction between wave and triangular obstacles with different arrangement forms	Congfang Ai/ Weiye Ding	
11:55 - 14:00	Lunch Break		
14:00- 14:05	Session Kick-off		Gensheng Zhao
14:05- 14:25	Experimental study on fluid adjustment by vegetation patch in open channel	Wen Wang	Junning Pan NHRI
14:25 - 14:45	Assessment and prediction of flood risk: a case analysis on old Brahmaputra river floodplain of Bangladesh	M.H. Shalehy	Shu Ning Chan Hong Kong University of Science and Technology
14:45- 15:05	Simulations of extreme storms on Belgian Coast	Gensheng Zhao	
15:05 - 15:25	Numerical simulation of wave-current-structure interactions using Flow3D	Huy Thanh Pham	
15:25 - 15:45	Tea Break		
15:45- 16:05	A terrain numerical simulation technique of hydraulic model	Renyi Xu	Shu Ning Chan Hong Kong University of Science and Technology
16:05- 16:25	Experiment research and numerical simulation comparison of unsymmetrical y-type penstock for hydraulic loss	Jia Dong	
16:25-16:45	Experimental study on scale effect of aeration and dynamic load induced by air jet	Jinde Gu	
16:45-17:05	Preliminary investigation on the sea waves around Myanmar	Htay Htay Aung	
17:05-17:25	TBC		Junning Pan NHRI

Session 5**Topic:** Simulation Technology of Water Ecological Environment**Date:** May 31, 2018**Venue:** Conference Hall 3, 3th floor of R&D Hotel**Convener:** Yu Yang Tel: +8613912920437 Jiangyu Dai: Tel: +8615051842630

Time	Topic	Speaker	Chair
08:30 - 08:35	Session Kick-off		Yu Yang
08:35 - 08:55	Flow field measurement downstream of Seton dam, Canada	Wenming Zhang	Qiuwen Chen NHRI
08:55 - 09:15	The impacted fish conservation in Chinese hydro project	Yu Yang	
09:15 - 09:35	Experimental study of open channel flows with two layers vegetation	Xiaonan Tang/ Hamidreza Rahimi	James Ball IAHR
09:35 - 09:55	Modeling Hydro-Morpho-Dynamics of Channels Confluence Based on 2D Depth Average Flow	Hydar Lafta Ali/ Badronnisa Yusuf	
09:55- 10:15	Tea Break		
10:15 – 10:35	Good rivers come from flooding. A hydrodynamic evaluation of Three Gorges Dam functionality to downstream Yangtze River, China.	Yiping Li	James Ball IAHR
10:35 - 10:55	Site distribution optimization for cost-effectively monitoring ecological effects of water transfer on shallow lakes: a case study in Lake Taihu	Jiangyu Dai	
10:55 - 11:15	The use of Distance between Soil Layers in Predicting the Hydraulic Conductivity of Saturated Granular Soils	Mohamed Ahmad ALsakran,	

11:15 - 11:35	Effects of bathymetric errors on salinity modeling in a shallow river delta	Zhi Li	Qiuwen Chen NHRI
11:35 - 11:55	Monitoring dissolved oxygen within saturated soils continuously	Tonina Daniele	
11:55 - 14:00	Lunch Break		
14:00- 14:05	Session Kick-off		Jiangyu Dai
14:05- 14:25	Quantifying tidal eddies for the operational oil spill modeling in a typical Texas estuary	Dongyu Feng	Yu Yang NHRI
14:25 - 14:45	Numerical modelling of suspended radioactive sediment transport in a stream using matlab	Linda Sarpong	
14:45- 15:05	Numerical simulation of saltwater intrusion in a lock with long canal adopting coupled box model and three-dimensional model	Qingyuan Yang	Ties Rijcken TU Delft
15:05 - 15:25	Development of a new software model to evaluate irrigation performance	Ahmed E. Elshaikh	
15:25 - 15:45	Tea Break		
15:45- 16:05	A simple method for investigation on the tracing of water particles under wave action	Junwei Su	Ties Rijcken TU Delft
16:05- 16:25	A comparison of numerical and Lu modeling of water flow and heat transport with laboratory experiments	Jie Ren/Wenbing Zhang	
16:25-16:45	Permeability of RHA stabilized river sediment	Moumouni Mamoudou Ibrahim	Yu Yang NHRI
16:45-17:05	Study on simulating reservoir water temperature stratification based on artificial neural networks	Yuan Yao	
17:05-17:25	Modelling water temperature along Missouri river using HEC-RAS	Senlin Zhu	

Session 6

Topic: Academic Salon of Master and PhD students

Date: Morning, May 31, 2018

Venue: Multiple-Function Hall (3rd F, R&D Hotel)

Convener: Jun Li Tel: +8613813398402

Time	Topic	Speaker	Department	Chair
08:30 - 08:50	Application of Rice Water-saving Irrigation in Taihu Lake Basin	Yi Xu	Hydrology and Water Resources	Jun Li NHRI
08:50 - 09:10	Experimental Study on Influence of Breakwater Core Material on Wave Propagation	Tianting Sun	River and Harbor Engineering	
09:10- 09:30	Composite Alkaline Activator on Cemented Soil: Multiple Tests and Mechanism Analyses	Fei Xu	Materials and Structural Engineering	
09:30- 09:50	Research on The Chain Effect and Chain-cutting Countermeasures for Reservoir Disaster	Zhiyuan Fang	Dam Safety Management	
09:50 - 10:10	Flood risk assessment and flood control safety decision in the downstream area of Yi-Shu-Si River Basin	Jingxiu Wu	Hydraulic Engineering	
10:10 - 10:30	Tea break			
10:30 - 10:50	A Study on The Coupling Simulation Technique of Waves and Tides	Maofei Chen	River and Harbor Engineering	Jun Li NHRI
10:50 - 11:10	Ultrasound Excited Thermography Applied to Detect Micro Cracks in Concrete Materials	Yu Jia	Materials and Structural Engineering	
11:10 - 11:30	Research on Urban Diffusive Pollutant Build-up/Wash-off Model based on Cellular Automata	Xiao Qi	Eco-Environmental Research	
11:30 - 11:50	Morphodynamics of North Branch of Yangtze Estuary in Medium-term Process Based Modeling	Jian Jiao	River and Harbor Engineering	
11:50 -12:10	Filing and Emptying system Study of High Lift Lock in China	Jun Li	Hydraulic Engineering Department	

Session 7**Topic:** Modeling and Measuring Technology Introduction of Sponsors**Date:** Afternoon, May 31, 2018**Venue:** Multiple-Function Hall (3rd F, R&D Hotel)**Convener:** Jun Li Tel: +8613813398402

Time	Topic	Reporter	Corporation	Chair
14:00 - 14:20	Application of Machine Vision in Fluid Measurement	Jingjing Lu	Nanjing Hawksoft Technique Co. Ltd.	Jun Li NHRI
14:20 - 14:40	The simulation of flood discharge of Hydropower Station	Mingbiao Lu	Nanjing Tianfu software Co. Ltd.	
14:40- 15:00	Research and application of model experiment intelligent management platform	Jun Zheng	Beijing Sinfotek Technology Co.,Ltd.	
15:00- 15:20	Application of automatic control and information technology in hydraulic test modeling	Xiaodong Wang	Nanjing SURE Tech. & Dev Co. Ltd.	
15:20 - 15:40	Tea break			
15:40 - 16:00	Automated Acoustic Monitoring Systems for Quantifying Fish Passage at Hydropower Facilities	Ray Huang	Shanghai Zealquest Science & Technology Co. Ltd.	Jun Li NHRI
16:00 - 16:20	Measuring technologies of Hydrodynamic and sediment in Lab	Philip Gong	Shanghai P-NAV Tech. Co., Ltd.	
16:20 - 16:40	Energy saving analysis and renovation plan for laboratory operation	Xiaobao Wang	Nanjing Bosen Technology Co., Ltd.	
16:40 -17:00	Application of Tianfu Software in Water Conservancy Industry	Junsen Huang	Nanjing Tianfu software Co. Ltd.	