

International Scientific Committee:

Choi, Sung-Uk (Yonsei University, South Korea)
Fujita, Ichiro (Kobe University, Japan)
Kawahara, Yoshihisa (Hiroshima University, Japan)
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Yokojima, Satoshi (Shizuoka University, Japan)

Local Organizing Committee:

Kawahara, Yoshihisa (Hiroshima University, Japan) – *Chair*
Yokojima, Satoshi (Shizuoka University, Japan) – *Secretary*
Uchida, Tatsuhiko (Hiroshima University, Japan)
Inoue, Takuya (Hiroshima University, Japan)
Ginting, Bobby Minola (Hiroshima University, Japan)

Venue:

The mini-symposium will be held at MIRAI CREA of Hiroshima University in Higashi Hiroshima city.

Phoenix International Center MIRAI CREA
1-4-5 Kagamiyama, Higashi-Hiroshima City
Hiroshima, Japan 739-0046



Mini-Symposium Website:

For updated information on program, map, etc. please visit the website:

<https://hyd.hiroshima-u.ac.jp/japan-korea-symposium-will-be-held-on-march-28-30/>

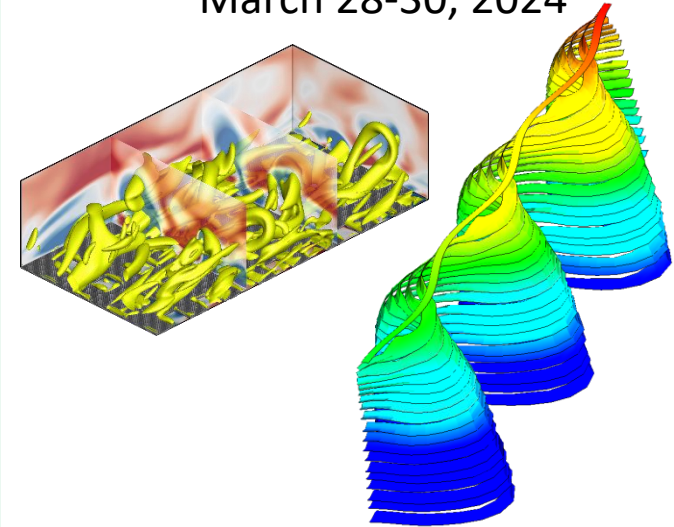


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Korea – Japan Hydraulics 2024

The 6th Korea-Japan Mini-Symposium on Modeling and Measurement in Hydraulics

Higashi Hiroshima City, Japan
March 28-30, 2024



Hosted by Hiroshima University
Co-hosted by Shizuoka University



HIROSHIMA UNIVERSITY



National University Corporation
Shizuoka University

The 6th Korea-Japan Mini-Symposium on Modeling and Measurement in Hydraulics

Preface:

The Korea-Japan Mini-Symposium on Modeling and Measurement in Hydraulics originated in 2009 at Yonsei University, marking the inception of a distinguished forum for the exchange of cutting-edge research in computational and experimental hydraulics. Building upon the success of the first symposium, the second and third symposiums were held at Kobe University in 2010 and 2012, respectively, not only enhancing the exchange of research ideas but also giving chances for many colleagues to work closely in Korea and Japan. The fourth symposium returned to Yonsei University. Subsequently, the symposium's influence transcended borders, as the fifth edition took place at Universiti Tunku Abdul Rahman in 2017, coinciding with the 37th IAHR World Congress in Kuala Lumpur. Continuing its trajectory of excellence, the sixth symposium was scheduled to take place at Hiroshima University in March 2020. However, due to the onset of the corona pandemic, the Local Organizing Committee (LOC) made the difficult decision to postpone the symposium. Now after overcoming challenges and adapting to the new normal, we are thrilled to finally convene the face-to-face symposium here.

Theme & Topics:

A. Turbulent flows

Surface jet, turbulent characteristics, turbulence measurement, etc.

B. Fluid dynamics

Experimental techniques, vegetated flows, sandy beaches, open-channel flows, etc.

C. Numerical models

SPH, machine learning, sub-grid/sub-depth modeling, RANS techniques, etc.

D. River flows and morphology

Morphology transformation, bedload dynamics, flow resistance, etc.

Agenda & Schedule:

Time	Activities	PIC	Institution
Thu, 28-Mar			
09:30-09:50	Arrival: large baggages (not necessary for the excursion) will be sent to Hotel by students using taxi	Dr. Tatsuhiko Uchida	Hiroshima University
09:50-11:00	To Hiroshima station		
11:15-12:15	Lunch around Hiroshima Station or marina		
12:15-12:45	To marina		
13:00-16:00	Excursion: crusing		
16:30-17:30	To Hiroshima University		
17:30-18:00	Setting		
18:00-19:30	Welcome reception	MIRAI CREA	Hiroshima University Campus
Fri, 29-Mar			
09:00-09:10	Opening	Dr. Satoshi Yokojima	Shizuoka University
	Opening remark	Prof. Yoshihisa Kawahara	Hiroshima University
09:10-10:25	Turbulent flows	Prof. Jin Hwan Hwang	Seoul National University
		Dr. Satoshi Yokojima	Shizuoka University
	LES of the surface jet over a submerged weir	Prof. Sung-Uk Choi	Yonsei University
	Turbulent flow characteristics around spur dikes	Dr. Seokkoo Kang	Hanyang University
	Turbulence measurement of river surface flow in space-time domain using a mid-infrared camera	Prof. Ichiro Fujita	Kobe University
10:25-10:45	Coffee break with souvenir sweets	MIRAI CREA	Hiroshima University Campus
10:45-12:25	Fluid dynamics	Dr. Seokkoo Kang	Hanyang University
		Dr. Ryota Tsubaki	Nagoya University
	Experimental and numerical investigations of pressure fluctuations in a dam emergency outlet	Prof. Joongcheol Paik	Gangneung-Wonju National University
	On numerical prediction of vegetated flows with undisturbed-flow effects	Dr. Satoshi Yokojima	Shizuoka University
	Depth inversion of sandy beaches	Dr. Yong Sung Park	Seoul National University
	Free-surface behavior in turbulent open-channel flows	Dr. Hideto Yoshimura	Gifu University
12:25-14:00	Lunch	MIRAI CREA	Hiroshima University Campus

14:00-15:40	Numerical models	Prof. Joongcheol Paik	Gangneung-Wonju National University
		Prof. Ichiro Kimura	University of Toyama
	Smoothed Particle Hydrodynamics method for dispersed free-surface flow	Prof. Akihiko Nakayama	Universiti Tunku Abdul Rahman
	Reconstructing meso-scale eddy with machine learning	Prof. Jin Hwan Hwang	Seoul National University
	A subgrid three-dimensional model for two-dimensional calculation of open channel flows	Dr. Tatsuhiko Uchida	Hiroshima University
	RANS modeling for shallow water under wet-dry conditions	Dr. Bobby Minola Ginting	Hiroshima University
15:40-18:00	Video and Poster presentations	Dr. Tatsuhiko Uchida	Hiroshima University
	A morphodynamic model for incised bedrock meanders	Dr. Takuya Inoue	Hiroshima University
	Poster Presentations: 16 x 1 min.	Students	Hiroshima University
18:30-20:30	Dinner		Saijo
Sat, 30-Mar			
09:30-11:35	River flows and morphology	Dr. Yong Sung Park	Seoul National University
		Dr. Tatsuhiko Uchida	Hiroshima University
	Morphological transformation of the Nuta River in Hiroshima Prefecture before and after the 2018 flood	Prof. Yoshihisa Kawahara	Hiroshima University
	Bedload dynamics in a braided gravel river with artificial secondary channels	Dr. Ryota Tsubaki	Nagoya University
	Experimental and numerical study on transport characteristics of sediment waste products with forced recirculations in an aquaculture Pond	Prof. Ichiro Kimura	University of Toyama
	Numerical simulation of throughflow and erosion in permeable structures using CFD-DEM	Dr. Daisuke Kobayashi	Central Research Institute of Electric Power Industry
	Flow resistance in meandering channels	Dr. Lugina Fikry Purwa	Hiroshima University
12:00-13:45	Lunch		Saijo

Mini-Symposium Format:

- Language: English
- Presentation forms: Oral and posters
- Duration: 28 – 30 March 2024 (3 days)