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13th Sloshing Dynamics & Design
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Rhodes, Greece, June 20-25

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Chung Knapp Angelides Hong Kawai Liu Wan

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The 31st Annual ISOPE-2021 Conference,

Rhodes, June 20-25, 2021

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The 32nd Annual International Ocean and Polar (Arctic) Engineering Conference, Shanghai, June 6-10, 2022

ISOPE-2021 Rhodes Conference

PRESENTATION LIST BY TOPICS

Plenary: Tsunami

Ten-year-long Progress from the 2011 Great East Japan Earthquake in Tsunami Monitoring and Coastal Defense in Japan

Hiroyasu Kawai, Port and Airport Research Institute, Japan

Keynote 1: Pacific Ferromanganese Crusts: Exploitation

Geological Parameters Controlling the Variability in Grade and Abundance of the Ferromanganese Crusts in the NW Pacific Seamounts: A Review of ROV Exploration and Geochemical Characterization

Akira Usui, Anna Nagaokaka, Kochi University; Kazuhiko Suzuki, JAMSTEC, Japan

Keynote 2: Pacific Ferromanganese Nodules: Mining

Deep-Ocean Manganese Nodule Miners and Collectors on 18,000-ft Seafloor: Full-scale Miner Touchdown and Automatic Track-keeping Control

Jin S Chung, ISOPE and formerly Lockheed Missiles & Space Co. – Ocean Mining Program, USA

SUNDAY ZOOM PRESENTATIONS

OPENING SESSION

Time: Jun 20, 2021 06:00 (UK), 13:00 (Beijing), 00:00 (Houston)

Conference Opening

ISOPE-2021 Conference Chair Report

Chair: Demos Angelides, Aristotle University of Thessaloniki, Greece

Vice Chair: Hua Liu, Shanghai Jiao Tong University, China

Welcome to Rhodes Virtual, 2021

Prof. Efstratios Stylianidis, Vice Rector for Research and Lifelong Learning, Aristotle University of Thessaloniki, Greece

ISOPE President's Message

Eva Loukogeorgaki, Aristotle University of Thessaloniki, Greece

Invitation to ISOPE-2022 (In-person) Conference, Shanghai

Hua Liu, Shanghai Jiao Tong University, China

SUNDAY ZOOM NETWORKING SESSION

Time: Jun 20, 2021 07:00 (UK), 14:00 (Beijing), 01:00 (Houston)

MONDAY ZOOM SESSIONS

CCP-WSI (on Zoom) (Volume III), MONDAY

CCP-WSI Showcase 1 (on Zoom): Monday (Volume III)

Start Time: 12:00 (UK, BST), 19:00 (Beijing), 06:00 (Houston)

Chair: Ling Qian, Manchester Metropolitan University, UK

Co-Chair: Edward Ransley, University of Plymouth, UK

Numerical Simulation of Liquid Sloshing Using a Fully nonlinear Potential Flow Model in the Non-inertial Coordinate System

Zaibin Lin, Ling Qian, Wei Bai, Manchester Metropolitan University, United Kingdom

A High-Performance Open-Source Solution for Multiphase Fluid-Structure Interaction

Wendi Liu, Stephen M. Longshaw, Alex Skillen, David R. Emerson, Science and Technology Facilities Council; Carmine Valente, Francesco Gambioli, Airbus Operations Ltd., United Kingdom

A Coupled RANS-VOF and Actuator Disk Model for Floating Offshore Wind Turbines

Edward J. Ransley, Scott A. Brown, Martyn R. Hann, Deborah M. Greaves, University of Plymouth, United Kingdom

Numerical Simulation of Regular Wave Transmission across a Breakwater Based on CIP Model with Adaptive Mesh

Yiyang Zong, Xizeng Zhao, Zhejiang University, China

A Three-dimensional Parallel CIP-based Model for Wave-structure Interaction

Kaiyuan Zheng, Xizeng Zhao, Zhejiang University, China

CCP-WSI Showcase 2 (on Zoom): Monday (Volume III)

Start Time: 14:00 (UK, BST), 21:00 (Beijing), 08:00AM (Houston)

Chair: Deborah Greaves, University of Plymouth, UK

Co-Chair: Lee Margetts, University of Manchester, UK

Numerical Investigation on Air Entrainment Behavior and Energy Evolution of Hydraulic Jump

Zheng Li, Cheng Liu, Decheng Wan, Shanghai Jiao Tong University, China

**Steep Focused Wave Interactions with a Fixed Vertical Cylinder
Using a Boundary Element Method**

Tian Geng, Frederic Dias, University College Dublin, Ireland

Panel Discussion on

Challenges and perspectives in modelling WSI

TUESDAY ZOOM SESSIONS

MMS (on Zoom): Tuesday (Volume III)

Multi-Scale Hybrid Modelling 1 (on Zoom): Tuesday (Volume III)

Start Time: 12:00 (UK, BST), 19:00 (Beijing), 06:00 (Houston)

Chair: Zhihua Xie, University of Cardiff, UK

Co-Chair: Shiqiang Yan, City University, London, UK

A Hybrid VOF/Euler-Lagrange Method for Vertical Plunging Jet Flows

Xiaosong Zhang, Jianhua Wang, Decheng Wan, Shanghai Jiao Tong University; Feifei Shi, China Ship Development and Design Center, China

A Coupled Overset CFD and Mooring Line Model for Floating Wind Turbine Hydrodynamics

Zhaibin Lin, Ling Qian, Wei Bai, Manchester Metropolitan University, United Kingdom

Springing Response of a Tension-leg-platform Wind Turbine Excited by Third-harmonic Force in Nonlinear Regular Waves

Sudhir Jagdale, Independent Engineering Consultant; Q.W. Ma, Shiqiang Yan, City University of London, United Kingdom

Study on Elastic Complex Plate Characters by Using Two Way Fluid-structure Interaction Method

Zhilu Zhou, Xing Zheng, Harbin Engineering University, China; Qingwei Ma, City, University of London, UK; Long Gao, Harbin Engineering University, China

Numerical Analysis of Flow Kinematics in Green Water on Deck

Qian Wang, Kang-Ping Liao, Ning Fan, Wen-Yang Duan, Harbin Engineering University, China; Qing-Wei Ma, City University London, UK

Multi-Scale Hybrid Modelling 2 (on Zoom): Tuesday (Volume III)

Start Time: 14:00 (UK, BST), 21:00 (Beijing), 08:00 (Houston)

Chair: Qingwei Ma, City University, London, UK

Co-Chair: V. Sriram, IIT Madras, India

Numerical Simulation of Trimaran's Motion in Wave by a Hybrid Method based on QALE-FEM and OpenFOAM

Jiaye Gong, Yunbo Li, Shanghai Maritime University, China; Shiqiang Yan, Qingwei Ma, City, University of London, UK

Numerical Simulations of a Floating Offshore Wind Turbine in the Focused Wave with a Hybrid Model

Ziying Yu, Harbin Engineering University, China; Shiqiang Yan, City, University of London, UK; Xing Zheng, Harbin Engineering University, China; Qingwei Ma, City, University of London, UK; Hongbin Hao, Harbin Engineering University, China

Panel Discussion (30 min on Zoom)

WEDNESDAY ZOOM SESSION

PARTICLE METHODS (on Zoom): Wednesday (Volume III)

Start Time: 09:00 (UK, BST), 16:00 (Beijing), 03:00 (Houston)

Chair: Abbas Khayyer, Kyoto University, Japan

Co-Chair: Shiqiang Yan, City University, London, UK

Investigation of Two-layer Liquid Sloshing based on Consistent Particle Method

Min Luo, Xiuqia Su, Zhejiang University; Pengzhi Lin, Sichuan University, China; Abbas Khayyer, Kyoto University, Japan; Xizeng Zhao, Zhejiang University, China

SPH Simulation of Water Waves and Impact with a Offshore Structures in a 2D Flume

Nicolo Salis, University of Pavia, Italy; Min Luo, Zhejiang University, China; Alessandro Reali, Sauro Manenti, University of Pavia, Italy

Comparative Analysis of Standard-WCSPH, δ -SPH and Riemann-SPH in Modeling Free-surface Flows

Yaru Ren, Sichuan University, China; Abbas Khayyer, Kyoto University, Japan; Min Luo, Zhejiang University; Pengzhi Lin, Sichuan University, China

Numerical Study on the Dynamic Interaction between Ice and a Vertical Compliant Structure by Smoothed Particle Hydrodynamics

Ningbo Zhang, Shiqiang Yan, City, University of London, UK; Xing Zheng, Harbin Engineering University, China; Qingwei Ma, City, University of London, UK

PANEL DISCUSSION

State-of-the-art of SPH for Ocean/Coastal Engineering

**16th OCEAN MINING AND GAS HYDRATES SYMPOSIUM
(Volume I)**

OMGH I: Gas Hydrates 1: (Volume I)

Effect of Fines Content and Hydrate Saturation on the Shear Rate Dependence of Methane Hydrate-bearing Sediments

Qi Wu, Norimasa Yoshimoto, Bat-ochir Tumurdulam, Shintaro Kajiayama, Yukio Nakata, Masayuki Hyodo, Yamaguchi University, Japan

Monitoring Technology of Gas Hydrate in Polar Drilling

Lei Li, Jin Yang, Xin Zou, Chaochang Zhang, Pengyu Yang, Shimin Li, Tong Ling, China University of Petroleum, Beijing; Li Yan, Logistics University of People's Army Police Force, China

Influence of Natural Gas Hydrate Decomposition on Vertical Seismic Response of a Deep-sea Reservoir

Yifei Wang, Qiang Li, Weiwei Duan, Jiaying Li, Zhejiang Ocean University, China

OMGH II: Gas Hydrates 2: (Volume I)

Development of Advancing Detection Tool and Pressure Core Sampler for Marine Gas Hydrate Exploration

Xiaoyang Li, Song Gang, Ming Zhao, Yongqin Zhang, Xin Zhang, Chinese Academy of Geological Sciences, China

Numerical Study on Gas Production and Stratum Response to Marine Hydrate Dissociation Directed by Depressurization

Benjian Song, Yufa He, Qi Fan, Zhuang Wu, Bo Yang, Yunjian Zhou, CNOOC Research Institute, China

A Concept Study for MIBS basis Natural Gas Hydrates Fueled Ship

Hee Jin Kang, Korea Research Institute of Ships and Ocean Engineering, Korea

Study of Gelling Cementing System for Shallow Hydrate Layer in Deep-Water Drilling

Chengzhang Cao, Laiju Han, Yuhuan Bu, Leiju Tian, China University of Petroleum-Qingdao, China

**DEEP OCEAN MINERALS:
Exploration and Mining Technology**

**Keynote 1: Deepsea Exploration
(Volume I)**

Geological Parameters Controlling the Variability in Grade and Abundance of the Ferromanganese Crusts in the NW Pacific Seamounts: A Review of ROV Exploration and Geochemical Characterization

Akira Usui, Anna Nagaokaka, Kochi University; Katzuhiko Suzuki, JAMSTEC, Japan

OMGH III: Deepsea Exploration (Volume I)

Tidal Circulation and Stream Resources in the Taiwan Strait

Konstantin Alex Korotenko, Shirshov Inst. of Oceanology, RAS, Russia; Peter Oleg Zavialov, Yang-Yih Chen, Hsien-Hua Lee, National Sun Yat-sen University, Taiwan, China

Turbulence Observation near the Deep-sea Bed as Environmental Impact Assessment: Direct Measurements and Indirect Estimates of Turbulent Kinetic Energy Dissipation Rate

Mamoru Tanaka, National Inst. of AIST; Yasuo Furushima, JAMSTEC; Masayuki Nagao, National Inst. of AIST, Japan

A New Development Direction of Deep Sea Exploration Vessels

Jian-hua Wang, Xi-bing Li, Shao-jun Liu, Min-tao Jia, Central South University, China

Keynote 2: Nodule Collection and Auto Track-keeping (Volume I)

Deep-Ocean Manganese Nodule Miners and Collectors on 18,000-ft Seafloor: Full-scale Miner Touchdown and Automatic Track-keeping Control

Jin S Chung, ISOPE, Formerly Lockheed Missiles & Space Co. – Ocean Mining Program, California, USA

OMGH IV: Manganese Nodules & Crusts Miner Collector (Volume I)

Path Planning of Subsea Mining Vehicle

Changyu Lu, Jianmin Yang, Shanghai Jiao Tong University, China

Sea-trial and Experimental Results of the Deep-sea Cobalt-rich Crust Sampling Machine

Jinrong Zheng, Ming Chen, Yuxiang Chen, Chao Xie, Jun Liu, Jiahua Xie, Jianyu Xiao, Hangzhou Li, Ning Yang, Inst. of Deep-sea Science and Eng., CAS, China

Numerical Investigation of the Impact Crusher using DEM Approach for Nodule Crushing in Deep Sea Mining Applications

Amudha K, Sundaramoorthi V, Gopkumar K, Ramadass G A, National Institute of Ocean Technology, India

Prediction of Ore Lifting Velocity in Model Experiment by Using Rheological Constants of Carrier Materials (Mixture of Viscous Fluid and Fine Particles)

Kiyotaka Orita, Kazuo Tani, Tokyo University of Marine Science and Technology; Akihiko Suzuki, Tetsushi Kosho, Fudo Tetora Corp, Japan

Influence of Submerged Water Jet Angle on Hard Soil Cutting Characteristics

Jifu Yin, Zhongwei Zhou, Qingbo Zhang, Guojun Hong, Nat'l Eng. Research Ctr of Dredging Tech. and Equipment, China

OMGH V: Deepsea Drilling (Volume I)

Experimental and Numerical Study on Outburst Fragmentation of Soil under Gas Expansion

Danning Liu, Peng Li, Xuhui Zhang, Xiaobing Lu, Jiyan Qiao, Zhenpeng Leng, Yan Zhang, Inst of Mechanics, CAS, China

Analysis of Fracture Ballooning in Deep Water Wells during Drilling

Zixiang Wen, Honghai Fan, China University of Petroleum-Beijing; Deqiang Tian, CNOOC Research Institute; Yuhan Liu, China University of Petroleum-Beijing, China

OMGH VI: Panel Discussion (Volume I)

Join SUNDAY ZOOM NetWork session

**RENEWABLE ENERGY:
OFFSHORE WIND AND OCEAN (Volume I)**

Wind Turbine I (Volume I)

Numerical Study of Flow-induced Noise around Cylinder and Rod-NACA0012 Hydrofoil

Liangjie Yu, Decheng Wan, Shanghai Jiao Tong University; Luyu Chen, China Ship Scientific Research Center, China

An Advanced Energy Balance Wake Superposition Model Considering Faster Wake Recovery

Xiaofeng Chen, Power China Huadong Engineering Corporation; Shun Xu, Decheng Wan, Shanghai Jiao Tong University, China

Numerical Simulations of Asymmetrical Wake Flows of a Yawed Wind Turbine

Dezhi Wei, Decheng Wan, Shanghai Jiao Tong University, China; Changhong Hu, Kyushu University, Japan

Wind Turbine II: Aero-Hydrodynamics (Volume I)

Numerical Study of Coupled Aero-Hydrodynamics Performances of a Floating Offshore Wind Turbine with Heave Plate

Jiancai Zheng, Yang Huang, Decheng Wan, Shanghai Jiao Tong University, China

Design and Hydro-aero-elastic Modeling of a TLP Concept for Floating Wind Turbine Applications

Thomas P. Mazarakos, University of West Attica; Dimitrios I Manolas, Spyridon A Mavarakos, National Technical University of Athens, Greece

Aeroelastic Stability Analysis of a Large Wind Turbine based on BEM Theory

Long Gao, Xing Zheng, Harbin Engineering University, China; Qingwei Ma, City, University of London, UK; Zhilu Zhou, Harbin Engineering University, China

Numerical Analysis of Aero-Hydrodynamic Responses of Floating Offshore Wind Turbine Considering Blade Deformation

Yang Huang, Decheng Wan, Shanghai Jiao Tong University, China; Changhong Hu, Kyushu University, Japan

Numerical Investigations of Wake Flows of Counter-Rotating Wind Turbines in Shear Inflows

Heming Bai, Yang Huang, Decheng Wan, Shanghai Jiao Tong University, China; Changhong Hu, Kyushu University, Japan

Wind Turbine III (Volume I)

Validation of a Novel Wind Turbine Simulation Tool via Benchmarking: Case Study of Jacket Structure

Aengus John Connolly, Gerard O'Mahony, Wood, Ireland

Predicting Bolt Stress under Uncertainty in Offshore Wind Turbine Structural Connections Using a Gaussian Process Surrogate Model

Jack Jorgensen, Melinda Hodkiewicz, Edward Cripps, Ghulam Mubashar Hassan, University of Western Australia, Australia

Numerical Modelling of Laterally Loaded Piles for Offshore Energy Applications

Saeed Abyaneh, Stelios Panayides, Subsea 7, UK

Design of a Semi-submersible Double Mushroom Wind Wave Energy Hybrid Power Generation Platform

Dong Chen, Lei Fu, Yujie Zhou, Ling Zhang, Wanchao Zhang, Jiangsu University of Science and Technology, China

Wind Turbine IV (Volume I)

Bluewind -a Floating Wind Turbine Concept for Reduced Maintenance and Installation Costs

Henning Heiberg-Andersen, Antonie Oosterkamp, Norwegian Research Centre AS; Kåre Olav Krogenes, Bluewind, Norway

Hydrodynamic Loads and Scour Morphology Simulation around Offshore Wind Turbines

Carlos Menéndez-Vicente, Richard Simons, Susana López-Querol,
University College London, United Kingdom

A New Recommended Practice for Seismic Design for Offshore Wind Farms

Marcus Klose, DNV, Germany; Junkan Wang, DNV, United Kingdom;
Albert Ku, DNV, Taiwan China

Wind Turbine V: Wind Farm (Volume I)

Drilled Pile Foundations for Offshore Wind Farms

Thomas Löhning, Kristine Lee Kaufmann, Jacob Brandt Groes, COWI
A/S, Denmark

Comparison of Simulated Offshore Wind Farm Wakes and SAR Images

Henning Heiberg-Andersen, Heidi Ytterstad Hindberg, Jørn Havås
Mæland, Harald Johnsen, Torleif Lothe, Leonid Vasilyev, Norwegian
Research Centre AS, Norway

Decision Support System for Offshore Wind Farm Installation

Shengrui Peng, Helena Szczerbicka, Matthias Becker, Leibniz University
Hannover; Daniel Rippel, Michael Lütjen, BIBA – Bremer Institut für
Produktion und Logistik GmbH, Germany

Design of a Semi-submersible Platform for 8 Megawatt Wind Turbine

Leon Cesar Martin Escobedo, Huerta E Dolores Huerta, José Hernández-
Hernández, Universidad Veracruzana; Gonzales I Feliz, Mexican
Petroleum Institute, Mexico

Wind Turbine VI: (Volume I)

CFD Simulations of Near and Far Wakes of Two Turbines in a Tandem Configuration

Maokun Ye, Yu Wang, Hamn-Ching Chen, Texas A & M University,
USA; Arjen Koop, Maritime Research Institute Netherlands, Netherlands;
Manuel Rentschler, WavEC Offshore Renewables; Álvaro Garrido Vital,
University of Lisbon, Portugal

An Univariate Extreme Sea State and Extreme Wind Speed for an Offshore Wind Turbine off the South Coast of Jamaica

Andre White, Martyn Hann, Jon Miles, Robert Rawlinson-Smith,
Deborah Greaves, University of Plymouth, United Kingdom

Assessment of Meta-models to Estimate Fatigue Loads of an Offshore Wind Turbine

Franziska Müller, Paula Krabbe, Clemens Hübler, Raimund Rolfes,
Leibniz University Hannover, Germany

Wind Turbine VII: Floating 1 (Volume I)

Open-Loop Control of Adjustable Tuned Mass Dampers for Floating Wind Turbine Platforms

Daniel Zalkind, Matt Shields, National Renewable Energy Laboratory; Eben Lenfest, Andrew Goupee, Christopher Allen, University of Maine, USA

A Computationally-efficient Frequency Domain Model of a Floating Wind Turbine with Hull-based Tuned Mass Damper Elements

Christopher K. Allen, Andrew J. Goupee, Anthony M. Viselli, University of Maine, USA

Two-DoF Model-Informed Controller Gain Tuning for Several Floating Wind Platforms

Eben Lenfest, Andrew Goupee, University of Maine; Alan Wright, Nikhar Abbas, National Renewable Energy Laboratory, USA

Wind Turbine VIII: Floating 2 (Volume I)

Dynamic Response Study of Wind Turbine Blades based on Dynamic Boundary

Junlai Li, Wuhan University of Technology; Yonghe Xie, Yu Shu, Zhejiang Ocean University, China

Fatigue Analysis of Mooring Systems in Large Wave Height for Floating Wind Turbines and DLC Considerations

Masakatsu Saito, National Maritime Research Institute, Japan

Dynamic Characteristics of Floating Wind Turbine Towers Based on Dynamic Boundary

Zhiqiang Liu, Yu Wei, Junlai Li, Yonghe Xie, Zhejiang Ocean University, China

Wind Turbine IX: Floating 3 (Volume I)

In-service Condition Evaluation of Offshore Wind Power Structure by the Data-driven Method

Hou Qiao, Key Laboratory of Far-shore Wind Power Technology of Zhejiang Province; Chunsheng Zhang, Shenzhen University; Wei Li, Hu Zhou, Key Laboratory of Far-shore Wind Power Technology of Zhejiang Province, China

Mechanical Coupling Effect on the Horizontal Response of Floating Offshore Wind Turbine Installation Using a Catamaran with a Low Height Lifting System

Sunghun Hong, David Vågnes, Ting Liu, Karl Henning Halse, Torodd Skjerve Nord, Norwegian University of Science and Technology, Norway

Effects of the Sequence of Freak Wave and Mooring Failure on the Transient Response of a Spar-type Floating Offshore Wind Turbine

Bin Wang, China Classification Society; Yan Li, Tianchang Yin, Tianjin University, China

Experimental Study of the Dynamic Response of a Spar-Buoy Offshore Wind Turbine under Wave Attack

Argiro Vavouraki, Konstantina Galani, Vasilios Lyras, Athanassios Dimas, University of Patras, Greece

Wave Energy (Volume I)

Offshore Wind and Wave Energy Resource Assessment in the Norwegian Waters based on ERA5 Reanalysis

Christos Stefanakos, SINTEF Ocean; Elisabetta Tedeschi, NTNU; Ute Broenner, SINTEF Ocean, Norway

Performance Analysis of the Wave Energy Conversion with Liquid Metal Magneto-hydrodynamic Generator Based on Multi-source Confluence

Yutao Shi, Yanjiao Liu, Lingzhi Zhao, Aiwu Peng, Inst of Electrical Eng., CAS, China

Hydrodynamic Analysis and Power Conversion Characteristics for Perforated Dual-Buoy Wave Energy Converter

Yujie Zhou, Lei Fu, Dong Chen, Wanchao Zhang, Jiangsu University of Science and Technology, China

Efficiency Properties of a Wave Energy Converter Placed in Front of a Vertical Breakwater

Dimitrios N. Konispoliatis, Anargyros S. Mavrakos, Spyridon A. Mavrakos, National Technical University of Athens, Greece

Ocean & Wave Energy (Volume I)

A Guyed Support Structure for OWT Installations in Intermediate Water Depths

Maria Antoniou, ETH Zurich, Switzerland; Rallis Kourkoulis, National Technical University of Athens; Fani Gelagoti, Grid Engineers, Greece; Ioannis Anastasopoulos, ETH Zurich, Switzerland

Experimental Study on Wave Slamming Characteristics of an Oscillating Buoy of Wave Energy Converter under Different Wave Conditions

Xing Luo, Jian Qin, Yanjun Liu, Shandong University, China

Numerical Simulation of Wave Loads on a Cylindrical OWC Wave Energy Converter

Yu Zhou, Dezhi Ning, Bin Teng, Dalian University of Technology; Lin Lin, China Three Gorges Corp, China

Tidal Energy (Volume I)

Experimental Study of Wake Flow around a Twin-rotor Tidal Stream Turbine

Yudi Zhou, Guohui Wang, Xiangfeng Lin, Jisheng Zhang, Hohai University, China

Preliminary Parametric Study of a Tidal Energy Device Using an Open-source CFD Tool

Abolghasem Pilechi, Sean Ferguson, Behnaz Ghodoosipour, Andrew Cornett, National Research Council Canada; Laird Bateham, Yourbrook Energy Systems Ltd, Canada

Modeling of Hydrodynamics and Sediment Transport around Tidal Stream Turbines in ZhouShan Water, China

Qibo Zhang, Jisheng Zhang, Dawei Guan, Fangyu Wang, Hohai University, China

Potential Assessment of Tidal Stream Energy in Weihai water, China

Fangyu Wang, Jisheng Zhang, Qibo Zhang, Hohai University, China

Ocean, OTEC & Solar Technology (Volume I)

Harvesting Ocean Energy Using a Hybrid Type of Nanogenerator with PENG and TENG

Ede Mehta Wardhana, Hidemi Mutsuda, Yoshikazu Tanaka, Takuji Nakashima, Taiga Kanehira, Taichi Yamada, Hiroshima University; Shuhei Maeda, Sumitomo Electric Industries, Japan

Influence of Wave Direction on the Electrical Performance of a Piezoelectric Paint based Ocean Energy Harvester Attached to a Fish Aggregating Device

Xinru Du, Hidemi Mutsuda, Yoshikazu Tanaka, Takuji Nakashima, Taiga Kanehira, Hiroshima University, Japan

Optimum Layouts of a Cluster of Heaving Point Absorbers in front of a Wall

Eva Loukogeorgaki, Aristotle University of Thessaloniki, Greece; Constantine Michailides, Cyprus University of Technology, Cyprus; George Lavidas, Delft University of Technology, Netherlands; Ioannis K Chatjigeorgiou, National Technical University of Athens, Greece

Investigation on the Effect of the Number of Sub-Modules to Convergence of Structural Responses in Numerical Analysis of the Floating Multi-Body Solar Photovoltaic Systems

Hyun-Sung Kim, Byoung Wan Kim, Sa Young Hong, Korea Research Institute of Ships and Ocean Engineering, Korea

Stability Analysis of Cold Water Pipe under Different Inlet Flow Field Models

Yongqi Ma, Yunxiang You, Aichun Feng, Shanghai Jiao Tong University, China

OCEAN & WIND Energy: Panel
Join SUNDAY ZOOM NetWork session

OCEAN TECHNOLOGY (Volume I)

OCEAN TECHNOLOGY I: Floating Tunnel, Bridge (Volume I)

Research on the Calculation Method of Towing Water Resistance Coefficient of Long and Large Tunnel Elements

Xue-gang Wang, Shuai Yang, Mei-hong Lin, CCCC Fourth Harbor Eng. Inst. Co, China

Mooring Analysis of Sea-spanning Bridge Large Prefabricated Foundation Positioning and Sinking

Qian Cheng, Gao Liu, Tiancheng Liu, Shangyou Chen, CCCC Highway Bridge Nat'l Eng. Research Center, China

Anti Swing Controller of Marine Crane based on Joint Delay Feedback Control

Min-min Zheng, Shanghai Jiao Tong University, China; Shu-bo Zhang, Dublin City University, Ireland; Chao Chen, Yu-ying Tan, Ya-dong Liu, Shanghai Jiao Tong University, China

OCEAN TECHNOLOGY II: Floating System – Floatover (Volume I)

Hydrodynamic Study of Undocking Operation during Float-over Installation in Shallow Water

Licheng Qin, Tianjin University; Huailiang Li, Wentai Yu, Offshore Oil Engineering Co; Hongyan Ding, Puyang Zhang, Tianjin University, China

Experimental Investigation on Twin-barge Floatover Installation in Regular Waves for Mega Topside

Huailiang Li, Xinchao Li, Wentai Yu, Offshore Oil Engineering Co; Xiaodong Bai, Junhui Huang, Hanbing Luo, Tianjin University, China

Innovative Float-Over Installation Approach via Portable DP Vessel

Azlan Abu Bakar, PETRONAS, Malaysia

Ship Motion and Load Response when Navigating in Sea Environment with Carriage of Heavy-lifts

Yucu Huang, Yanping He, Yadong Liu, Shanghai Jiao Tong University; Ming Qiu, COSCO Shipping, China

OCEAN TECHNOLOGY III: TLP (Volume I)

Slow-drift Motion of FPSO in Waves of Double-Peak Spectrum

Seunghoon Lee, Yonghwan Kim, Seoul National University; Joong-Soo Moon, In-Hye Lee, Ming-Kyeong Lee, Hyundai Heavy Industries, Korea

Dynamic Response of Deepwater Tension Leg Platforms under Seismic Ground Motion and Wave Loading

Yang Yu Zhenmian Li, Siyuan Cheng, Mingren Zhao, Yupeng Cui, Jiangxin Yu, Lixin Xu Tianjin University, China

FLOATING SYSTEM (Volume I)

Floating System 1 (Volume I)

Floating Structural Concepts and Riser Systems for Deep and Ultra-deep Water for East Coast of India

Ove T Gudmestad, Daniel N Karunakaran, University of Stavanger, Norway

Mooring System Optimization for Marine Anchored Structures in Survival Mode

Alexander S. Bolshev, Sergey A. Frolov, Ekaterina V. Shonina, Peter the Great St. Petersburg Polytechnic University, Russia

Numerical Analysis of Multiple Floating Bodies with Beam Connectors Using Bi-axial Interpolation of Wave Forces

Byoung Wan Kim, Hyun-Sung Kim, Sa Young Hong, Korea Research Institute of Ships & Ocean Engineering, Korea

A Parametric Study on the Motion Response of Large Scale Floating Structures Moored by Elastic Mooring Lines

Hiroaki Eto, Hitomi Kashima, Ryo Sekiguchi, Yudai Suzuki, Tomoki Ikoma, Yasuhiro Aida, Koichi Masuda, Nihon University, Japan

Floating System 2 (Volume I)

A Historical Review of Disconnectable Moorings for Ship Shaped Floating Production Units

Andrew Newport, SBM Offshore, Monaco

Wave Characterization for the Design of Offshore Structures

Liliana Ramos-Sánchez, José Hernández Hernández, Jonathan de Jesus Espinoza-Maza, Mariana Silva-Ortega, Agustin L Herrera-May, Universidad Veracruzana, Mexico

Study on the Hysteresis Effect of Deepwater Drilling Platform-riser-wellhead System Response

Liangbin Xu, Deqiang Tian, Leixiang Sheng, Chaowei Li, CNOOC Research Institute; Xiuquan Liu, China University of Petroleum; Mengbo Li, CNOOC Research Institute, China

Floating System 3 (Volume I)

Experimental Investigation on Load Characteristics of Articulated Connector for a Large Floating Structure Model

Hao Wu, Wuhan University of Technology; Hui Liu, Marine Design & Research Institute of China; Weiqin Liu, Xuemin Song, Wuhan University of Technology, China

Comprehensive Electrical Simulation Analysis of a Joint Oil Fields Development Project in South China Sea with the World's Longest Tie-back with Dual ESP

Yiru Hu, Yinfeng Qiu, Guangxin Hou., CNOOC Research Institute; Qiang Li, CNOOC, China

The Long-Term Structural Vibration Monitoring of the TPC Meteorological Mast -- the Synchronicity of the Tide and the Third Natural Frequency of the Structure

Kung-Chun Lu, National Center for Research on Earthquake Engineering; Wei-Chen Tseng, Feng Chia University; You-Shu Kuo, National Cheng Kung University; Chiou-Feng Jueng, Ruey-Chyi Chen, Chia-Chi Liao, Taiwan Power Co, Taiwan China

ENVIRONMENT AND ECOLOGY (Volume I)

Environment and Ecology 1 (Volume I)

Hydrodynamic Analysis of Containment Boom and the In-place Analysis of Its Anchor Pile under the Wave Action

Da Li, Meirong Jiang, Yang Liu, Xu Jia, Wenzhou Liang, Zhaoyang Wang, CNOOC Research Institute, China

Consideration of Motion of Tsunami Driven Drifting Victims based on Numerical Calculations

Riko Morita, Masashi Watanabe, Taro Arikawa, Chuo University, Japan

Formation Mechanism of Characteristics of Hydrodynamics, Sediment and Topography in Channel

Yuzhong Li, Shanghai Water Engineering Design & Research Institute, China

Study on Groundwater Control in Coastal Seawater Intrusion Areas

Jingli Zhao, Yue Deng, National Marine Data and Information Service; Yuanqing Ma, Shandong Marine Resource & Environment Research Institute; Xiaofeng Duan, Weiling Song, National Marine Data and Information Service; Yandong Xu, Shandong Marine Resource and Environment Research Institute, China

Environment and Ecology 2 (Volume I)

The Influence of the Deep Water Channel Project on Salinity Front in North Passage of Yangtze River Estuary in the Dry Season

Kuo Chen, Yunlong Wu, Cuiping Kuang, Jie Wang, Tongji University, China

Analysis of Throwing Mud and Sediment to Jiudian Shoal Ecological Reserve

Yuan Shi, Shanghai Waterway Eng. Design and Consulting Co., China

GEOTECHNOLOGY (Volume II)

GEOTECH I: Soil Properties (Volume II)

Modeling Subgouge Sand Deformations by Using Multi-Layer Perceptron Neural Network

Hamed Azimi, Hodjat Shiri, Memorial University of Newfoundland, Canada

The Plastic Behavior and Ultimate Bearing Capacity of Spread Footings on Inhomogeneous Cohesive Soils

Chao-Ming Chi, Zheng-Shan Lin, Pu-Yuan Huang, Feng Chia University, Taiwan China

Effects of Wave Nonlinearity on the Porous Seabed Response and Liquefaction

Zhaojun Wang, Titi Sui, Chi Zhang, Hohai University, China

Large-size Interfacial Shear Properties of Carbonate Soil in Constant Volume Condition

Leyu Gou, Sa Li, Tianjin University; Shantian Huang, Wentai Yu, Offshore Oil Engineering Co., Ltd, China

GEOTECH II: Piles and Anchors 1 (Volume II)

Assessment of Effect of Entrapped Water during Pile Driving Installation of Monopiles

Martin Underlin Østergaard, Empire Engineering, Denmark; Alessio Saviano, SDA Bocconi, Italy; Søren Peder Hyldal Sørensen, Kristine Lee Kaufmann, COWI A/S, Denmark

Shaft Friction of Grouted Piles In Rock from New Database of Pile Load Tests

Indrasenan Thusyanthan, Sebastien Manceau, Atkins; Jamie Klapper, Scottish Power, United Kingdom

Development of p - y Curve in Clay Based on Cyclic T-bar Test

Teng Wang, Yan Yang, China University of Petroleum-Qingdao, China

Numerical Simulation of Drag Anchor Trajectory in Non-linear Soil Based on CEL Method

Zheng Huang, Harbin Engineering University; Feng Yin, Zhong Li, CNOOC Research Institute; Yanbo Liu, Harbin Engineering University, China

GEOTECH III: Piles and Anchors 2 (Volume II)

Some Practical Considerations of Seal Integrity of Suction Pile

Kar-Lu Teh, Changzhi Zhang, Kevin Huang, Ji Liang, Husky Oil China Ltd.; Xiaoning Qi, China Offshore Oil Engineering Co, China

Impact Assessment of Manifold Suction Pile Sinking

Kar-Lu Teh, Kevin Huang, Changzhi Zhang, Husky Oil China Limited; Xiaoning Qi, China Offshore Oil Engineering Co, China

Ultimate Lateral Capacity of Rigid Spiral Pile under Monotonic Loading in Dense Sandy Soil

Amarbayar Jugdernamjil, Noriyuki Yasufuku, Kyushu University, Japan; Tsoggerel Tsamba, Mongolian University of Science and Technology, Mongolia

GEOTECH IV: Foundation, Stability (Volume II)

A Study on Feasibility of the Method of Sampling and Pull-up Test

Kazuo Tani, Tsuyosyi Ikeya, Daisuke Inazu, Tokyo University of Marine Science and Technology, Japan

A Hybrid Coupled Pile Foundation Application to Subsea PLEM for CALM System in Super Soft Clay

Wei Fang, Offshore Oil Engineering Co. Ltd; Yongwei Gu, Institute of Deep-sea Science and Engineering, CAS; Fengyun Wang, Guangkuo Xing, Gang Li, Offshore Oil Engineering Co. Ltd, China

Residual Strength and Bearing Capacity of Diatomaceous Soft Rock

Dyah Sri Utami, Maki Ikeya, Tokai University; Masaru Akaishi, PEC Co. Ltd; Motohiro Sugiyama, Tokai University, Japan

GEOTECH V: Spudcan (Volume II)

Influence of Spudcan Lateral Slip on Key Components of Jack up Platform

Jie Gao, Menglan Duan, China University of Petroleum-Beijing; Jianbo Li, China Oilfield Services Limited, China

Experimental Study on the Penetration of Large Rectangular Spudcan in Clay

Lindong Fan, China University of Petroleum-Beijing; Dongshi Wang, Fei Wang, China Oilfield Services Ltd; Menglan Duan, Jinjia Wang, Songlin Gao, China University of Petroleum-Beijing, China

Influence of Unsaturated Hydraulic Parameters of Colluvium on Large-scale Landslide Stability Analysis

Ming-Chien Chung, Chien-Hsin Chen, Chih-Hao Tan, Sinotech Engineering Consultants; Wei-An Chao, National Chiao Tung University; Tung-Lin Tai, Central Geological Survey, MOEA., Taiwan, China

SUBSEA, PIPELINES, RISERS AND UMBILICALS (Volume 2)

SUBSEA: South China Sea (Volume II)

Study on Solution Selection of Subsea Central Manifold Foundation of LingShui 17-2 Deep-water Gas Field

Yongwei Gu, Institute of Deep-sea Science and Engineering, CAS; Fengyun Wang, Yuesong Gao, Offshore Oil Engineering Co., Ltd., China

Study on Shallow Foundation Design of PLETs for LingShui17-2 Gas Field

Fengyun Wang, Offshore Oil Engineering Co., Ltd.; Yongwei Gu, Inst of Deep-sea Science & Engineering; Wei Fang, Offshore Oil Engineering Co., Ltd., China

Development of a Marginal Deepwater Gas Field in South China Sea

Changtao Wang, Guomin Sun, Yang He, Fei Zhang, Zhibing Yu, Offshore Oil Engineering Co, China

Lihua29-1 Project: A Successful Subsea Development of Deepwater Gas Field in South China Sea

Guomin Sun, Yang He, Changtao Wang, Fei Zhang, Zhibing Yu, Offshore Oil Engineering Co, China

Investigating the Response of Distributed Fibre Optic Acoustic Sensing for Subsea Cable Motion Monitoring

James Jackson, John Macarthur, Fraunhofer Centre for Applied Photonics; Brian Sellar, University of Edinburgh; William N. MacPherson, Heriot-Watt University; Henry T. Bookey, Fraunhofer Centre for Applied Photonics, UK

Numerical Simulation of Scour of Backfill Soil by Jetting Flows on the Top of Buried Caisson

Fei Wu, Wei Li, Shuzhao Li, Xiaopeng Shen, Delong Dong, CNOOC Research Institute, China

PIPELINES & RISERS I: Flow Assurance 1 (Volume II)

High-fidelity FE Model of the Riser Subjected to the Slug-flow in the Arbitrary Lagrangian-Eulerian Description

Hanze Yu, Yonghe Xie, Zhejiang Ocean University, China; Gangqiang Li, York University, Canada

CFD Study for the Entry Length of Single-sized Slurry in Horizontal Pipeline

Weihuang Liu, Yan-ping He, Ming-zhi Li, Qian-yi Chen, Chao Huang, Shanghai Jiao Tong University, China

Experimental Research on Critical Velocity of Slurry Pipeline Transportation

Jin Xing, Feixin Wang, Qingbo Zhang, Guojun Hong, CCCC Nat'l Eng. Research Ctr of Dredging Tech. and Equipment, China; A. M. Talman, Delft University of Technology, Netherlands

PIPELINES & RISERS II: Flow Assurance 2 (Volume II)

Truncation Effect on Transport Parameter Estimation for a Slug Tracer Test in a Porous Medium

Tomoki Kurasawa, Mariko Suzuki, Kazuya Inoue, Kobe University, Japan

Identification of Hydrate Risk Region for Deepwater Gas Field Flow Assurance: Transition from Static Thermodynamic Region to Dynamic Hydraulic Region

Zhennan Zhang, Yan Gao, Yuxing Li, Wuchang Wang, Cuiwei Liu, Qihui Hu, China University of Petroleum (East China); Peibin Gong, Sinopec, China

Analysis on Temperature Drop Characteristics and Temperature Maintenance Calculation of Subsea Mat Oil Tank

Haiyan Wang, Hongbo Dou, Chunsheng Wang, Qilai Wang, CNOOC Research Institute, China

PIPELINES & RISERS III: Pipeline I (Volume II)

Axial Pipeline Restraint Afforded by Rockfill: Experimental Data

Henry Milewski, TechnipFMC, United Kingdom

Axial Pipeline Restraint Afforded by Rockfill: FEM Analysis of Normal Force

Henry Milewski, TechnipFMC, United Kingdom

Experimental Studies on the Bond Behaviors of Concrete-filled Steel Tubular (CFST) Members

Facheng Wang, Wenqi Xie, Tsinghua University, China

Experimental and Numerical studies on Bearing Behavior of Cracked Thin-Walled Pipes Repaired by CFRP

Zixian Yu, Zhiyuan Shen, Jingxi Liu, Yi Zhang, Longzao Zhou, Huazhong University of Science and Technology, China

PIPELINES & RISERS IV: Pipeline 2 (Volume II)

Automating Advanced Pipeline Engineering for Powerful and Efficient Finite Element Design

Graeme Lovie, Subsea 7, Malaysia; Carlos Charnaux, Martin Gallegillo, Subsea 7, UK

Challenges of the Design, Fabrication, and Installation of the Liuhua29-1 Flowlines

Guomin Sun, Offshore Oil Engineering Co; Xianhong Feng, CNOOC Research Institute; Zhibing Yu, Gang Liu, Yonghui Zhang, Offshore Oil Engineering Co, China

Numerical Investigation of Anchor's Dropping Impact on Subsea Pipelines Buried in Clays

Pan Gao, Xuehua Fu, Zhihui Liu, Yihua Liu, Shanghai Maritime University, China

Prediction of Pipeline Rotation for a Pipe-in-Pipe with Residual Curvature Sections

Nicholas James Vaughan, Pål Foss, Per Richard Nystrom, IKM Ocean Design AS, Norway

PIPELINES & RISERS V: Pipeline 3 (Volume II)

Methodology for Full Life Cycle Assessment of Mechanically Lined Pipe Wrinkling Limit State

Minh Le, Eric Giry, Vincent Cocault-Duverger, Saipem SA, France

Engineering Critical Assessment of Embedded Flaws in Undermatch Pipeline Girth Welds

Aurelien Pepin, Tomasz Tkaczyk, TechnipFMC, UK; Noel O'Dowd, University of Limerick, Ireland; Kamran Nikbin, Imperial College London, UK

A Method to Simulate Water Hammer Pressures with Moving Device in Subsea Maintaining Pipelines

Kang Zhang, Dalian Maritime University; Shimin Zhang, China University of Petroleum-Beijing; Zengmeng Zhang, Yongjun Gong, Dalian Maritime University, China

Application of Tube in Pipe Model in Route Roughness Analysis

Kankan Ni, CNOOC Research Inst., China

PIPELINES & RISERS VI: Riser (Volume II)

An Efficient Method to Estimate Extreme Response of Risers from Floaters in Multidirectional Sea States

Andre Ramiro Amorim, Subsea 7, Brazil; Daniel Nalliah Karunakaran, Subsea 7, Norway; Danilo Abreu Souza Lima, Subsea, Brazil; Gabriel Rombado, ExxonMobil Global Projects, USA; Boje Tveraaen, Equinor, Norway

A Fundamental Study on Dynamic Behavior of Small Floating System with SLWR in Regular Waves

Hiroaki Eto, Miwa Takashima, Daiki Kono, Tomoki Ikoma, Yasuhiro Aida, Koichi Masuda, Nihon University, Japan

Multi-objective Optimization Analysis of Ultra-deep Water Drilling Riser under Harsh Environmental Conditions

Hezhen Yang, University of Glasgow, UK; Fei Xiao, Nanyang Technological University, Singapore

A Study on the Parametric Vibration Instability of the Top-Tensioned Riser based on Differential Quadrature Method

Yang Zhang, Wei Li, Huazhong University of Science and Technology, China

PIPELINES & RISERS VII: Flexible and Umbilical (Volume II)

Freespan Lengths for Umbilicals and Flexible Pipes Determined by Bending Stiffness, Soil Conditions and SN curves

Rolf Hugo Kirkvik, Kongsberg Maritimne AS, Norway

Black-Box Model for Bend Radius Control in Deep-Water Subsea Umbilical Installation

Felix S Rantow, Saipem America, USA

Modelling n^{th} Order Stress Hysteresis of Helix Laid Elements in Cables and Umbilicals

Kjetil André Karlsen, Nexans Norway AS, Norway

A Novel Sensor Technology for Identifying Bending Stiffness on Subsea Power Cables' and Umbilicals' by use of Curvature Measurement

Lars Jordal, Nexans Norway AS; Erwin Vermeer, Combiteq AS, Norway

PIPELINES & RISERS VIII: Installation (Volume II)

Pipeline Reel-lay Installation FE Simulation Employing In-house Material Model Subject to Cyclic Loading

Shulong Liu, Black Horse Pipeline Ltd, UK; Eric Giry, Vincent Cocault-Duverger, Saipem SA, France

Feasibility Analysis of Hard hang-off Mode Riser Evacuating from Severe Weather

Yanbin Wang, Deli Gao, Jiduo Wang, Guangrui Zhang, China University of Petroleum-Beijing, China

Effects of Diffusers on Discharging Jet

Pin-Tzu Su, Chen-Shan Kung, ATE Energy International Co., Taiwan
China

PIPELINES & RISERS IX: Transportation (Volume II)

A Dynamic Theoretical Model of Long-distance Sediment Pipeline Transport based on Lagrangian Method and its Field Test Validation

Zhongwei Zhou, Feixin Wang, Jifu Yin, Guojun Hong, CCCC Nat'l Eng.
Research Ctr of Dredging Tech. and Equipment, China

**Study on Conveying Properties of Coarse Sand by Field Large-scale
Dredging Pipeline and Long-distance Transportation Scheme**

Feixin Wang, Zhongwei Zhou, Jin Xing, Chaozhe Yuan, Nat'l Eng.
Research Ctr of Dredging Tech. and Equipment, China

**Polymer Liner Material Assessment for Application in Polymer
Injection Enhanced Oil Recovery**

Colin A Jones, Mark Smithson, Subsea 7, United Kingdom

PIPELINES & RISERS X: Panel
Join SUNDAY ZOOM NetWork session

UNDERWATER TECHNOLOGY (Volume I)

UNDERWATER TECH I: Sensing, Communication (Volume I)

**Research on Underwater High-precision Velocity Measurement System
of Offshore Platform**

Guannan Shi, Jiafeng Zhao, Dexin Shen, Guohua Xu, Huazhong
University of Science and Technology, China

Fishing Net Underwater Localization Using Acoustic Signals

JeongYong Park, Chungkuk Jin, Do-Soo Kwon, MooHyun Kim, Texas
A&M University, USA; Kiseon Kim, Gwangju Institute of Science and
Technology, Korea

**Structurally Integrated Transmitter Beacon for Underwater Wireless
Optical Communications in Multiple Ocean Types**

Jonathan J.D. McKendry, University of Strathclyde; Xiaobin Sun,
Fraunhofer Centre for Applied Photonics; Martin D. Dawson, University
of Strathclyde; John Macarthur, Henry Bookey, Fraunhofer Centre for
Applied Photonics, UK

**Underwater Image Enhancement and Super-resolution Restoration
Based on Generative Adversarial Networks**

Liming Niu, Liya Duan, Xiangliang Dong, Zhonghai Zhou, Qilu
University of Technology, China

UNDERWATER TECH II: Navigation, Path Planning (Volume I)

**Energy-efficient Tracking Control of X Rudder AUV with Rudder
Dynamics Compensation**

Yingkai Xia, Huazhong Agricultural University; Kan Xu, Wuhan Second
Ship Design and Research Institute; Guohua Xu, Huazhong University of
Science and Technology; Xin Zeng, Yicai Wang, Xianghong Qi,
Huazhong Agricultural University, China

Research on AUV Three-dimensional Path Planning Based on NSGA-II Algorithm

Yunlei Zhang, Bo Yang, Wei Zhao, Jie Shen, Powerchina Hubei Electric Engineering Corp; Hongxu Guan, Wuhan University of Technology, China

An Improved Path Planning Algorithm for Unmanned Underwater Vehicle using Genetic Method

Ming Chen, Min Li, Inst. of Deep-sea Science and Eng., CAS, China

Positioning Method of Underwater Cleaning Robot Based on Vision and Inertial Navigation

Hongxuan Chen, Huazhong University of Science and Technology; Yougao Luo, Second Ship Design and Research Institute of Wuhan; Guoyuan Tang, Huazhong University of Science and Technology; Tao Sun, Second Ship Design and Research Institute of Wuhan; Hui Huang, Huazhong University of Science and Technology, China

UNDERWATER TECH III: Control (Volume I)

Neural Network Adaptive Backstepping Control of Multi-link Underwater Flexible Manipulators

Hui Huang, Guoyuan Tang, Lijun Han, Huazhong University of Science and Technology; Maolin Cheng, Second Harbor Engineering Co; De Xie, Hongxuan Chen, Huazhong University of Science and Technology, China

Design and Experimental Validation of a Roll Control Method for X-rudder Underwater Vehicle

Zhemin Huang, Huazhong University of Science and Technology; Jingyi He, Wuhan Second Ship Design and Research Institute; Ben Li, Yingjie Shao, Guohua Xu, Huazhong University of Science and Technology, China

Modeling of μ -ASV for Motion Control using Neural Network

Shun Fujii, Yamato Kawamura, Junichiro Tahara, Tokyo University of Marine Science and Technology, Japan

Research on Fault-tolerant Control of Rudder for Unmanned Underwater Vehicle Driven by x Rudder

Jie Gao, Guohua Xu, Bin Dong, Zhemin Huang, Huazhong University of Science and Technology, China

UNDERWATER TECH IV: Operation (Volume I)

Weighted Current Profile as a Simplified Method on Obtaining Current Profile from Current Database for Deep Water ROV Operation

Michael Binsar Lubis, Mehrdad Kimiaei, University of Western Australia, Australia

Emergency System of Underwater Experimental Platform Based on Decision Tree

Dexin Shen, Hongming Wu, Guannan Shi, Guohua Xu, Huazhong University of Science and Technology, China

AUV Active Emergency Strategy Based on STPA Security Analysis

Jinxin An, Shaolong Yang, Yanhao Sun, Jin Huang, Huazhong University of Science and Technology, China

Research on Position Control Strategy of Underwater Platform with Time Delay

Jiafeng Zhao, Hongming Wu, Guannan Shi, Dexin Shen, Guohua Xu, Huazhong University of Science and Technology, China

UNDERWATER TECH V: Design, Application (Volume I)

Research on Mechanics Property of Damping Water-Lubricated Bearing of Underwater Vehicle Based on Finite Element

Juan Wang, Jun Wang, Jiabin Tian, Gangwei Wang, Wuhan Second Ship Design and Research Institute; Zhiheng Yue, Wuhan University of Technology, China

On Singularity-free Multi-body Modeling of Rigid-flexible Coupled Dynamics of an Underwater Tethered System

Thant Zin Htun, Hiroyoshi Suzuki, Osaka University, Japan; Daniel Garc'ia-Vallejo, Universidad de Sevilla, Spain; Ai Yamazoe, Yuka Aoki, Osaka University, Japan

Finite Element Optimization Analysis of Mechanical Properties of Mechanical Seal of Underwater Vehicle Shafting Based on Seal Width

Juan Wang, Wuhan Second Ship Design and Research Institute; Zhiheng Yue, Wuhan University of Technology; Jun Wang, Jiabin Tian, Gangwei Wang, Wuhan Second Ship Design and Research Institute, China

Dynamic Modeling and Analysis of Underwater Swimming Snake Robot with Soft Joint

Junhao Zhang, Yinglong Chen, Shuangxi Yang, Jun Li, Fujun Song, Yongjun Gong, Dalian Maritime University, China

UNDERWATER TECH VI: Hydrodynamics, CFD (Volume I)

Numerical Simulation of Submarine Hydrodynamic Performance under Different Free Surface Conditions

Kai Dong, Liwei Liu, Donglei Zhang, Xianzhou Wang, Huazhong University of Science and Technology, China

Numerical Simulation of the Oscillatory Flow Past a Wave Slender Body

Wenbo Wu, Guangzhou University, China

Research on Hydrodynamic Performance of Underwater Robot with Ducted Propellers and Hydrofoils

Shunyuan Xu, Jiaming Wu, South China University of Technology;
Haiyan Lv, Hua Liao, Guangzhou Shunhai Shipyards Ltd.; Xianyuan
Yang, Yizhe Dou, South China University of Technology, China

Transient Motion Control of an Underwater Glider based on Numerical Analysis

Satoru Yamaguchi, Yutaro Miyai, Kyushu University, Japan

**UNDERWATER TECH VII: Panel
Join SUNDAY ZOOM NetWork session**

ARCTIC SCIENCE & TECHNOLOGY (Volume I)

ARCTIC & POLAR I: Ice Loads on Structures (Volume I)

The Model of an Ice Plate with Fixed-ends Failure by Vertical and Horizontal Loads

Aleksandra Simakina, Mikhail Drepin, Peter the Great St. Petersburg
Polytechnic University, Russia

Autoregressive Model for Ice Loads Registered in Slow-speed Indentation Tests

Petr Zvyagin, Angelina Reztsova, Peter the Great St. Petersburg
Polytechnic University, Russia

Simulations of Wedge Slamming in Vicinity of Floating Ice Using Particle-based Solver

Takahito Iida, Yudai Yokoyama, Osaka University, Japan

Analysis of the Ice Destruction Mechanism in the Interaction of Level Ice Fields with Sloping Profile Structures

A.S. Bolshev, S.A. Frolov, Peter the Great St. Petersburg Polytechnic
University, Russia

ARCTIC & POLAR II: Ships in Ice and Vessel Design 1 (Volume I)

Development of Requirements for Ice Loads on the Hull of Large-capacity Berth-connected Ships

Vladimir N Tryaskin, St. Petersburg State Marine Technical University;
Viktor V Platonov, Krylov State Research Centre; Ivan A Svistunov,
Arctic and Antarctic Research Institute, Russia

Ice Loads on the Hull of Azimuth Thrusters of Ice Ships

Alexandr V. Andryushin, Sergey S Fedoseev, Central Marine Research
and Design Institute; Mikhail A Kuteynikov, Russian Maritime Register
of Shipping, Russia

Model for Ice-ship Interaction based on an Improved Peridynamics

Yuan Zhang, Chao Wang, Liyu Ye, Harbin Engineering University;
Shuai Sun, Nanjing University of Science and
Technology, China

**Effect of Ice Crushing Characteristics on Plastic Deformation of Ship
Plate under Ice Impact**

Luze Bi, Ling Zhu, Wei Cai, Wuhan University of Technology, China

ARCTIC & POLAR III: Ships in Ice and Vessel Design 2 (Volume I)

**How Safe Were Vessels during Research Cruises in Arctic in 2007-
2019? Linking the Ice Watch Data and the Polar Operational Limits
Assessment Risk Index System**

Karin Assev Øyen, Ekaterina Kim, Norwegian University of Science and
Technology, Norway

Optimal Sizing of Hybrid Electric Propulsive System for Polar Cruise

Zhuang Wang, Li Chen, Bin Wang, Shanghai Jiao Tong University,
China

**Bi-objective Optimal Design of Diesel/Battery Hybrid Electric
Propulsion System for Polar Icebreaker**

Guo Fengxiang, Chen Li, Du Wenlong, Shanghai Jiao Tong University,
China

**Investigation on Aerodynamic Characteristics of an Icebreaking
Hovercraft**

Hubing Chu, Kejie Chen, Haipeng Zhang, Song Gao, Marine Design &
Research Inst. of China, China

ARCTIC & POLAR IV: Ice Ridges and Ice Properties (Volume I)

**Long Term Measurements of Internal Level Ice Pressure in Vicinity of
Structures or (Land) Fast Ice**

Andrea Haase, Felix Hoppe, Hamburg Ship Model Basin; Jan M
Kubiczek, Technische Universitat Hamburg, Germany

**Morphometric Particulars of Ice Ridges with the Greatest Thickness of
the Consolidated Layer and Other Statistical Patterns of Morphometry
of One-years Ice Ridges**

Roman B. Guzenko, Yevgeny U. Mironov, Ruslan I. May, Viktor S.
Porubaev, Arctic and Antarctic Research Institute; Konstantin A.
Kornishin, Rosneft Oil Company; Yaroslav O. Efimov, Arctic Research
Centre; Russia

**Correlation Dependences of Level Ice Strength Properties in the Kara,
Laptev and East Siberian Seas**

Konstantin A. Kornishin, Rosneft Oil Company; Yaroslav O Efimov, Petr
A. Tarasov, Arctic Research Centre; Sergey M. Kovalev, Arctic and

Antarctic Research Institute; Alexander T. Bekker, Far Eastern Federal University, Russia

On the Main Factors in Ice Rubble Pile Development against the Sloped Structure

Kirill Sazonov, Aleksandra Simakina, Peter the Great St. Petersburg Polytechnic University, Russia

ARCTIC & POLAR V: Arctic Regions (Volume I)

A Mathematical Programming Approach to Determine Optimal Tieback Development Concepts of Two Offshore Oil Fields in the Barents Sea

Guowen Lei, Thiago Lima Silva, Milan Stanko, NTNU, Norway

Cyber Security for Cities and Rural Areas in the Arctic Region

Liv Brita Hætta Myrnel, Ove T. Gudmestad, UiT The Arctic University of Norway, Norway

Intensified Impact of Solar Activity on Antarctic Sea Ice Extent

Qun Zhou, National Marine Environmental Forecasting Center; Wen Chen, Institute of Atmospheric Physics, CAS, China

Numerical Modelling of Frozen Soil and Permafrost Subsidence Effects

Indrasenan Thusyanthan, Alexandros Loukas, Atkins, United Kingdom

Comparative Study on Different Development Model of Gas Resource in the Arctic

Wenhao Zhang, Lixia Li, Zhengrong Song, Wenwei Wang, Kaifeng Wu, Offshore Oil Engineering Co., Ltd., China

ARCTIC & POLAR VI: Iceberg Towing (Volume I)

Oscillations during Iceberg Towing

Vladimir A. Korshunov, Roman S. Mudrik, Dmitry A. Ponomarev, Alexander A. Rodionov, Dmitry V. Nikushchenko. State Marine Technical University of Saint-Petersburg; Konstantin A. Kornishin, Rosneft Oil Company; Yaroslav O. Efimov, Arctic Research Centre; Alexey V. Chernov, Ivan A. Svistunov, Arctic and Antarctic Research Institute, Russia

Research of the Sea State Influence on Iceberg Towing System Performance

Vladimir A. Korshunov, Roman S. Mudrik, Dmitry A. Ponomarev, Alexander A. Rodionov, Dmitry V. Nikushchenko, Dmitry S. Khmara, State Marine Technical University of Saint-Petersburg; Konstantin A. Kornishin, Rosneft Oil Company; Yaroslav O. Efimov, Arctic Research Centre; Polina V. Maksimova, Arctic and Antarctic Research Institute, Russia

Features of tabular icebergs towing

Nikita V. Tryaskin, Elena V. Ermolaeva, Kirill D. Ovchinnikov, Dmitriy V. Nikushchenko, Dmitriy S. Khmara, State Marine Technical University; Konstantin A. Kornishin, Rosneft Oil Company; Yaroslav O. Efimov, Arctic Research Centre; Alexandr V. Nesterov, Andrey A. Skutin, Arctic and Antarctic Research Institute, Russia

The Influence of Weather Conditions on Iceberg Detection and Towing Capabilities

Yaroslav O. Efimov, Arctic Research Centre; Konstantin A. Kornishin, Rosneft Oil Company; Yuriy. P. Gudoshnikov, Igor V. Buzin. Arctic and Antarctic Research Institute, Russia

ARCTIC & POLAR VII: Numerical Simulations (Volume I)

Effect of Iceberg Shape on Wind Force Parameters

Konstantin A. Kornishin, Rosneft Oil Company; Yaroslav O. Efimov, Arctic Research Centre; Dmitriy V. Nikushchenko, Dmitriy S. Khmara, Nikita V. Tryaskin, Andrey G. Andreev, State Marine Technical University; Andrey A. Skutin, Konstantin G. Smirnov, Arctic and Antarctic Research Institute, Russia

Iceberg Drift Simulations Using Inferred, Measured, and Ocean Model Currents

Ian D. Turnbull, Tony King, Freeman Ralph, C-CORE, Canada

Machine Learning Techniques for Ship Performance Predictions in Open Water and Ice

Mohammed F Islam, National Research Council, Canada, Canada

Numerical Simulation of the Interaction between Icebreaker and Level Ice with Different Flexural Strength

Zhe Chen, Yanping He, Yupei Ren, Yadong Liu, Shanghai Jia Tong University, China

Numerical Simulation of Failure of Sea Level-ice Based on the Damage-based Erosion Model

Dac Dung Truong, Nha Trang University, Vietnam; Beom-Seon Jang, , Seoul National University, Korea

ARCTIC & POLAR VIII: Ships Maneuvering and Icebreaking (Volume I)

A Model Test Study on a D-Assisted Mooring of a Semi-submersible Platform under the Coupling Action of Wave, Current and Artificial Ice Floes

Shengwen Xu, Xuefeng Wang, Jianmin Yang, Xin Li, Shanghai Jiao Tong University, China

Evaluation of Transit Simulation for Independent Navigation in Ice

Sabina Idrissova, Alexey Shtrek, Luigi Portunato, Sami Saarinen, Cayetana Ruiz de Almirón de Andrés, Aker Arctic Technology, Finland

OSIS-IHI Simulation of the Maneuvering Performance of USCGC Mackinaw (WLBB-30): Part I – Model Validation and Calibration
Michael Lau, National Research Council of Canada, Canada

OSIS-IHI Simulation of the Maneuvering Performance of USCGC Mackinaw (WLBB-30): Part II – The Simulation
Michael Lau, National Research Council of Canada, Canada

ARCTIC IX: Panel
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HYDRODYNAMICS (Volume III)

HYDRODYNAMICS I: Sea State (Volume III)

Verification of 1D and 2D Wave Spectral Formulations against Measured Data

Marco Cardellini, Gianluca Manes, Benedetta Maria Mauloni, Saipem S.p.A., Italy

Prediction of Wave Height and Direction from Vibration Data of Jacket Platform by Using Artificial Neural Network

Siyang Huang, Yan Huang, Tianjin University, China

Preliminary Study on Wave Height Prediction with Convolution Neural Network

YunHo Kim, YoonJin Ha, JongSu Choi, Korea Research Institute of Ships and Ocean Engineering, Korea

Wave Property Study in Waters off the Gulf of Guinea

Xinwei Zhou, Mili Chen, Fumin Xu, Jisheng Zhang, Hohai University, China

A Solution for Water Waves with Shear Current and Non-vanishing Vorticity over a Flat Bed

Jang-Ryong Shin, Daewoo Shipbuilding & Marine Engineering Co., Ltd., Korea

HYDRODYNAMICS II: Wave Loads 1 (Volume III)

Simulation of Nonlinear Waves Interacting with a Heaving Floating Body using a p-Multigrid Spectral Element Method

Line K. Mortensen, Technical University of Denmark, Denmark; Wojciech Laskowski, Universidad Politecnica de Madrid, Spain; Allan P. Engsig-Karup, Technical University of Denmark; Claes Eskilsson, Aalborg University; Carlos Monteserin, Technical University of Denmark, Denmark

Investigation of the Influence of the Main Dimensional Ratios of a Ship on the Added Resistance and Drift Force in Short Waves

Dimitris Mourkogiannis, National Technical University of Athens, Greece; Shukui Liu, Nanyang Technological University, Singapore

Prediction of Hydrodynamic Forces Acting on Ship Hull based on SQCM

Fakhri Akbar Ayub, Yoshitaka Furukawa, Hiroshi Ibaragi, Kyushu University, Japan

HYDRODYNAMICS III: Wave Loads 2 (Volume III)

Motion and Viscous Damping Characteristics of Single Cylinders of Different Sizes in Waves

Jie Cui, Chengyao Sun, Wanchao Zhang, Jiangsu University of Science and Technology, China

Hydrodynamics of a Free-Surface Piercing Porous Cylindrical Body

Dimitrios N. Konispoliatis, Spyridon A Mavrakos, Ioannis K Chatjigeorgiou, National Technical University of Athens, Greece

Numerical Investigation on Loads of Focusing Waves Passing through a Four-column Vertical Array

Shuang Chang, Ocean University of China; Bo Jin, Zhejiang Huadong Mapping & Engineering Safety Technology Co; Bin Wang, PowerChina Huadong Engineering Corp; Zhe Tian, Ocean University of China, China

HYDRODYNAMICS IV: Wave Characteristics 1 (Volume III)

A SPH Model with Open Relaxation Boundary for Wave Generation and Absorption

Guixun Zhu, Jason Hughes, Siming Zheng, Deborah Greaves, University of Plymouth, United Kingdom

Reproduction of Wave Field from Spatiotemporal Discontinuous Wave Data

Etsuro Okuyama, Akishima Laboratories (Mitsui Zosen); Munehiko Minoura, Osaka University, Japan

Constructive and Destructive Interference Locations of Waves in a Circular Wave Basin – Study of Velocity Component Perpendicular to Wave Direction

Taiga Kanehira, Hiroshima University, Japan; Roman Gabl, Laura Jordan, Thomas Davey, University of Edinburgh, UK; Takuji Nakashima, Naokazu Taniguchi, Hiroshima University, Japan; David Ingram, University of Edinburgh, UK; Hidemi Mutsuda, Hiroshima University, Japan

HYDRODYNAMICS V: Wave Characteristics 2 (Volume III)

Body Slenderness Effect on Free Surface Waves of a Generic Submarine in Linearly Stratified Fluid

Fenglai Huang, Liushuai Cao, Decheng Wan, Shanghai Jiao Tong University, China

Mathematical Model of the Wave Diffraction

Hongsheng Zhang, Peixin Zhou, Guangwen Hong, Shanghai Maritime University, China

Increasing Operational Limits of Marine Terminals

Rabih Ali Khodr, Saleem Parvez, Bassim A. Nawaz, Saudi Aramco, Saudi Arabia

Numerical Study on Influences of Wind on Migration of Green Algae in Jinmeng Bay

Dan Wang, Cuiping Kuang, Tongji University; Jiabo Zhang, Gang Wang, Hebei Geological Prospecting Bureau; Xin Cong, Tongji University, China

HYDRODYNAMICS VI: Ship Motion 1 (Volume III)

Study on Large Amplitude Ship Motion Calculation Based on Nonlinear Multi-domain Method with Wave-body Interaction Analysis Influenced by Incident Waves

Wen-jun Zhou, Xin Zhu, Liang Hong, Marine Design & Research Inst. of China; Renchuan Zhu, Shanghai Jiao Tong University, China

Engineering Prediction on Ship Motion and Green Water of Hatchless Container Ship under Extreme Sea Conditions

He Xu, Yulong Guo, Chuanqing Li, Shanghai Ship & Shipping Research Institute, China

Prediction of Roll Motion Using Fully Nonlinear Potential Flow and Ikeda's Method

Martin Alexandersson, Chalmers University of Technology; Martin Kjellberg, SSPA Sweden AB; Wengang Mao, Jonas W Ringsberg, Chalmers University of Technology, Sweden

A Two-Dimensional Numerical Study of Radiation of Piston Mode Fluid Resonance in a Narrow Gap

Lei Tan, Tomoki Ikoma, Yasuhiro Aida, Koichi Masuda, Nihon University, Japan

HYDRODYNAMICS VII: Ship Motion 2 (Volume III)

Prediction of the Motion of a Ship in Regular Head Waves Using Artificial Neural Networks

Shukui Liu, Nanyang Technological University, Singapore; Rong Xu, Shanghai Merchant Ship Design and Research Institute, Shanghai, China; Apostolos Papanikolaou; National Technical University of Athens, Greece

Study on Pitch-roll Coupled Motion Characteristics of Trimaran in Oblique Stern Wave

Zheng Fu, Harbin Engineering University; Yunbo Li, Jiaye Gong, Shanghai Maritime University; Kun Dai, Harbin Engineering University, China

Hamiltonian Boussinesq Simulation of Wave-ship Interaction above Sloping Bottom

R Kurnia, E van Groesen, LabMath-Indonesia, Indonesia

Experimental Study of Dynamic Displacement Estimation of Oscillating Floaters Based on Measured Accelerations

Chunyu Jiang, Ocean University of China; Xiaoming Zhan, Powerchina Huadong Engineering Corp; Fushun Liu, Ocean University of China, China

HYDRODYNAMICS VIII: Wave Impact, Slamming 1 (Volume III)

An Idealized Two-dimensional Breaking Wave Impact on a Vertical Wall

Theodosios D. Tsoulos, Ioannis K Chatjigeorgiou, National Technical University of Athens, Greece

Model Experimental Research of Wave and Slamming Load of Ship Hull with Bottom Sonar Opening

Xiyan Chen, Youjun Wu, Marine Design & Research Institute of China, China

Experimental Study on the Oblique Water Entry of a Cylinder with Progressive Wave

Yao Hong, Yongliu Fang, Hua Liu, Shanghai Jiao Tong University, China

Experimental and Numerical Investigation of Slamming on Wedges with Different Stiffened Panels

Hui Liu, Yifan Xiong, Hanbing Xu, Song Gao, Marine Design & Research Inst. of China, China

HYDRODYNAMICS IX: Wave Impact, Slamming 2 (Volume III)

Experimental Study on Cavity Evolution during the Oblique Water Entry of a Slender Axisymmetric Body at Constant Speed in Progressive Waves

Wenhao Tang, Yao Hong, Zhaoxin Gong, Hua Liu, Shanghai Jiao Tong University, China

Wind Modelling Sensitivity on Free-fall Lifeboat Simulations

Eelco Frickel, Patrick Schrijvers, MARIN, Netherlands; Erik Mostert, Vladimir Sovilj, Viking Norsafe Life-Saving Equipment Norway AS, Norway

Experimental Study on the Double-Slamming of a Trimaran Cross Section in Vertical Free Fall Motion

Shou-Qi Tang, Yang Zhang, Shi-Li Sun, Hui-Long Ren, Harbin Engineering University, China

Numerical Investigation of Slamming Loads during Water Entry of Ship Hull by MPS Method

Congyi Huang, Decheng Wan, Shanghai Jiao Tong University; Feifei Shi, China Ship Development and Design Center, China

HYDRODYNAMICS X: Ship Waves (Volume III)

Numerical Investigations of Breaking Bow Waves of KCS with Different Trim Angles

Jianhua Wang, Decheng Wan, Shanghai Jiao Tong University; Wentao Wang, China Ship Scientific Research Center, China

Numerical Study of Air Entrainment and Energy Dissipation Mechanisms of Plunging Breaking Waves

Yiding Hu, Cheng Liu, Decheng Wan, Shanghai Jiao Tong University, China

Forces Prediction of a Hydrofoil by Combined Machine Learning and CFD Approach

Hongjie Cao, Decheng Wan, Shanghai Jiao Tong University, China; Changhong Hu, Kyushu University, Japan

HYDRODYNAMICS XI: Resistance and Bubble Drag 1 (Volume III)

Derivation Process of Third Order GBT Terms and Work Expression by Using Large Strain

Rujiang Chiu, University of Manchester, United Kingdom

Numerical Research on Resistance Characteristics of Floating Pipe of Cutter Suction Dredger under Tidal Current

Minhua Shu, Jifu Yin, Nat'l Eng. Research Ctr of Dredging Tech. and Equipment; Cheng Li, CHEC Dredging Co; Zhongwei Zhou, Guojun Hong, Nat'l Eng. Research Ctr of Dredging Tech. and Equipment, China

An all-Mach HLLC Based Scheme for Multi-phase Flow with Surface Tension

M.Y. Oomar, A.G. Malan, R.A.D. Horwitz, B.W.S. Jones, University of Cape Town, South Africa; G.S. Langdon, University of Sheffield, UK

HYDRODYNAMICS XII: Resistance and Bubble Drag 2 (Volume III)

Investigation of the Distribution on the Bubble under the Bow of DTMB5415

Zhiqi Wu, Jawei Yu, Wenjing Yang, Zhongbiao Zhang, Dakui Feng,
Huazhong University of Science and Technology, China

**A High-order Numerical Method for Compressible Two-phase Flow in
General Curvilinear Coordinates**

Jingqi Li, Cheng Liu, Decheng Wan, Shanghai Jiao Tong University,
China

**Applied ERT Technology in the Measurement of Concentration
Distribution of Slurry in Horizontal Pipe**

Shufeng Cheng, Jin Xing, Feixin Wang, Jifu Yin, Qingbo Zhang, Guojun
Hong, CCCC Nat'l Eng. Research Ctr of Dredging Tech. and Equipment,
China

**Numerical Simulation of ONR Tumblehome Self-propulsion Using
Discretized Propeller and Body Force Models**

Zhongbiao Zhang, Liwei Liu, Jiawei Yu, Wenjing Yang, Zhiguo Zhang,
Kaijun Jiang, Huazhong University of Science and Technology, China

TSUNAMI AND SAFETY (Volume III)

PLENARY ON TSUNAMI (Volume III)

**Ten-year-long Progress from the 2011 Great East Japan Earthquake in
Tsunami Monitoring and Coastal Defense in Japan**

Hiroyasu Kawai, Port and Airport Research Institute, Japan

TSUNAMI AND SAFETY I: Generation (Volume III)

**Simulation of Tsunami Generation by Asteroid Impact Using
Smoothed Particle Hydrodynamics Method**

Zhenxi Zhao, Hua Liu, Shanghai Jiao Tong University, China

**Numerical Modelling of Tsunamis Generated by Landslides at the
Flanks of a Conical Island**

Alessandro Romano, Sapienza University of Rome, Italy; Javier L Lara,
Gabriel Barajas, Inigo J Losada, IHCantabria, Spain

Experimental Analysis on Landslide Generated Tsunamis

Tomoyuki Takabatake, Kindai University; Daichi Kishizaki, Waseda
University, Japan

TSUNAMI AND SAFETY II: Disaster and Mitigation (Volume III)

**Application of Artificial Neural Networks to Simulate Tsunami
Propagation in Model Basins**

Kazuhiro Honda, Kota Yamamoto, National Inst. for Land and
Infrastructure Management, Japan

**Tsunami Disaster Mitigation Project with Triple Lines of Defense at
Kochi Port**

Naota Ikeda, Munetaka Gondo, Katsuhiko Koizumi, Shikoku Regional Development Bureau; Taku Nishimura, Okinawa Defense Bureau, Japan

Effect of Coastal Sand Dune for Reduction of Tsunami Pressure on Seawall

Tetsuya Hiraishi, Tetsuya Okutani, Sou Iwata, Kyoto University, Japan

TSUNAMI AND SAFETY III: (Volume III)

Tsunami Hazard Assessment at GuangHai Bay of the South China Sea

Lifang Jiang, Weiming Xu, South China Sea Marine Forecast Center, SOA; Yi Yin, South China Sea Inst. of Oceanology, CAS; Chaoyu Yang, South China Sea Marine Forecast Center, SOA, China

Numerical Prediction of the Buckling Risk of Oil Storage Tank under Tsunami Inundation

Youhei Takagi, Sana Numata, Takanori Hino, Yokohama National University, Japan

A Shock Solution of the Wave Hydrodynamics over a Frictional Sloping Beach

Jun Zeng, Haijiang Liu, Zhejiang University, China

SLOSHING DYNAMICS (Volume III)

SLOSHING I: Rocket, SPH (Volume III)

Sloshing in a Lightweight Rocket Tank: Trajectory Prediction and Full-Scale Experimental Characterization

Andre Baeten, Augsburg University of Applied Sciences, Germany

Effect of Rolling on the Stratification and Rollover Phenomenon of LNG Cargo Tank

Yumeng Lyu, Jinshu Lu, Junjie Sun, Zhejiang Ocean University, China

Extreme Tank Force Prediction by FORM Using Time Domain Numerical Simulation Based on SPH

Tomoki Takami, Chong Ma, National Maritime Research Institute, Japan

Investigation on Sloshing in a Rectangular Tank based on an Improved MPS Method

Qiao-rui Wu, Shun-hong Bai, Zhen Zhang, Ming-hui Chen, Yong-he Xie, Zhejiang Ocean University, China

SLOSHING II: Impact (Volume III)

A Fast Computation Method for Liquid-Loaded Ship Rolling and Sloshing in Waves based on Potential/Viscous Flow Theories

Sangming Xu, Zhiliang Gao, Wuhan University of Technology, China

Fitting Three-Parameter Weibull and Generalized Pareto Distributions to the Sloshing Impact Peak Pressures

Yangjun Ahn, Jeoungkyu Lee, Taehyun Park, Yonghwan Kim, Seoul National University, Korea

Numerical Simulation of Intact Cabin Sloshing and Damaged Cabin Flooding Based on CFD

Lingfu Chen, Xide Cheng, Tingqiu Li, Wuhan University of Technology, China

SLOSHING III: Baffles (Volume III)

Accurate Prediction of Violent Slosh Loads via a Weakly Compressible VoF Formulation

Arnaud G. Malan, Bevan W. S. Jones, Leon C. Malan, M. Wright, University of Cape Town, South Africa

A Non-dimensional Characterization of Structural Vibration Induced Vertical Slosh

Michael Wright, University of Cape Town, South Africa; Francesco Gambioli, Airbus Operations Ltd, UK; Arnaud G. Malan, University of Cape Town, South Africa

Numerical Simulation of Sloshing in Partially Filled Tank with Arch-shaped Baffles

Yu-ying Tang, Chao Chen, Min-min Zheng, Ya-dong Liu, Shanghai Jiaotong University, China

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VORTEX SHEDDING & VIV (Volume III)

Vortex Shedding & VIV 1 (Volume III)

Learning Optimal Parametric Hydrodynamic Databases for Vortex-induced Crossflow Vibration Prediction of Both Freely-mounted Rigid and Flexible Cylinders

Samuel Rudy, Dixia Fan, Jose del Aguila Ferrandis, Themistoklis Sapsis, Michael S. Triantafyllou, Massachusetts Institute of Technology, USA

Numerical Simulation of Flow around a Blunt Body with a Thin Plate Based on Fluid-structure Interaction Method

Xi Zhang, Tingqiu Li, Zu-yuan Liu, Wuhan University of Technology, China; William Geraint Price, Pandeli Temarel, Dominic Hudson, University of Southampton, UK

A Comprehensive Method for Simulating the Inline-crossflow Coupling Vibration of a Drilling Riser System Considering Fluid-structure Interaction

Chaowei Li, CNOOC Research Institute, China

Wall-Proximity Effects on Strouhal Number for the Circular Cylinder in a Shear Flow

Yan Liu, Jun Liu, Fuping Gao, Institute of Mechanics, CAS, China

Vortex Shedding & VIV 2 (Volume III)

Numerical Investigation of Vortex-induced Motions of a Circular Cylinder with Free Surface

Songtao Chen, Weiwen Zhao, Decheng Wan, Shanghai Jiao Tong University, China; Changhong Hu, Kyushu University, Japan

Numerical Analysis of Vortex-induced Vibrations of a Slender Flexible Riser under Platform Motions

Hao Hu, Di Deng, Decheng Wan, Shanghai Jiao Tong University, China; Changhong Hu, Kyushu University, Japan

Two Turbulence Models For URANS Simulations of a Circular Cylinder Subject to Vortex Induced Vibration

M. Youssef, Ould el Moctar, Thomas E. Schellin, University of Duisburg-Essen, Germany

Experimental and Numerical Investigation of Vortex-induced Vibration for a Fully Submerged Oscillating Circular Cylinder in a Circulating Water Channel

H. el Sheshtawy, M. Youssef, S. Tödter, J. Neugebauer, O. el Moctar, T. E. Schellin, University of Duisburg-Essen, Germany

Vortex Shedding & VIV 3(Volume III)

Study on Marine Pipelines Forced Vibration and Vortex-Induced Vibration in Uniform flow and Combined Flow at Different Reynolds Number

Yue Deng, Jin Li, Jie Meng, Yingzhi Cao, Lixi Zhao, Jingli Zhao, National Marine Data and Information Service, China

The Influence of Incidence Angles on Flow Past a Fixed and Freely Vibrating Drilling Riser System in Laminar Flow

Fatin Alias, Mohd Hairil Mohd, Mohd Asamudin A Rahman, Universiti Malaysia Terengganu, Malaysia

Numerical Study of Passive Control of Flow-Induced Oscillation of Cylinder with Symmetric Strips

Chunhui Ma, Decheng Wan, Shanghai Jiao Tong University, China; Changhong Hu, Kyushu University, Japan

Flow Induced Vibration Assessment of Subsea Spools Using Power Spectrum Density Analysis

Zhenguo Tu, Qiang Wang, Stian Laland Rasmussen, Per Richard Nystrom, IKM Ocean Design AS; Amol Gade, Havfram AS, Norway

Join SUNDAY ZOOM NetWork 30ession

COASTAL HYDRODYNAMICS (Volume III)

COASTAL HYDRODYNAMICS I: Wave Mechanics 1 (Volume III)

Investigation of Inhomogeneous Wave Conditions in Sulafjorden
Christos Stefanakos, SINTEF Ocean; Jian Dai, Bernt Leira, NTNU,
Norway

Shallow Water Wave Modeling and Focusing Using Recurrent Neural Network
Shanran Tang, Liangsheng Zhu, Yingfen Xiong, Yiqin Yang, South
China University of Technology, China

Propagation of Waves in Variable Bathymetry in the Presence of Sheared Currents by Means of Coupled-modes
Kostas Belibassakis, National Technical University of Athens, Greece; J
Touboul, University of Toulon, Aix Marseille University, France

COASTAL HYDRODYNAMICS II: Wave Mechanics 2 (Volume III)

Ocean Current Conditions in the Ionian Sea
Øyvind Knutsen, Christos Stefanakos, Dag Slagstad, SINTEF Ocean,
Norway

Predictions to the Water Level of Changjiang Waterway Employing Deep Learning Algorithm LSTM
Li Youwei, Changjiang Waterway Planning, Design and Research
Institute; Jiang Zhaobing, Sanjiang University; Tan Kun, Changjiang
Waterway Planning, Design and Research Institute, China

Establishing a Predictable Tide Observational System for Wharfs of Kinmen and Matsu Ports near Taiwan
Shou-Shiun Lin, Institute of Transportation, MOTC; Shiahn-Wern Shyue,
National Sun Yat-sen University; Cheng Da Li, Institute of
Transportation, MOTC, Taiwan China

The Development of Wave Gauge Using Force Sensitive Resistor
Sarinya Sanitwong na Ayutthaya, Phansak Iamraksa, Kasetsart
University, Thailand

COASTAL HYDRODYNAMICS III: Wave Mechanics 3 (Volume III)

Wave Spectrum Filtration by Navigation Channel
Izmail Grigor'evich Kantarzhi, Aleksandr Sergeevich Anshakov,
Moscow State University of Civil Engineering, Russia

Numerical Model of Wave-induced Coastal Hydrodynamic and Morphodynamic Processes

Georgios A. Leftheriotis, University of Patras, Greece

Improving Forecasting of Wave-induced Swash Dynamics Using Advanced Numerical Modelling

Vasileios Afentoulis, Charlie Vergnet, Christian Rafffour, Lydie Denis, ACRI-IN, France

Numerical Simulation and Experimental Research on Wind Field Performance of Array Fan

Junlai Li, Wuhan University of Technology; Panpan Jia, Cheng Zhao, Yonghe Xie, Zhejiang Ocean University, China

COASTAL HYDRODYNAMICS IV: Storm Surge (Volume III)

Numerical and Hydraulic Experiments for Storm Surge Inundation by Wave Overtopping and Overflow

Maki Chiwata, Yukinobu Oda, Takayuki Hashimoto, Taisei Corporation, Japan

Simulation of Storm Wave Transformation in Macro-tidal Environment Based on FUNWAVE-GPU

Wenshan Wan, Xiangming Cao, Jian Shi, Chi Zhang, Hohai University, China

Study of Typhoon Induced Storm Surge Distribution along the Yangtze River and Estuary

Mingyan Xia, Fumin Xu, Hohai University; Yuncheng Wen, Zelin Cheng, Nanjing Hydraulic Research Institute, China

Storm Surge and Associated Impact Factors in Tianjin

Jie Li, Tianjin Marine Environmental Monitoring Central Station; Shenghui Zhou, Pilot National Laboratory for Marine Science and Technology; Yanzhen Chen, Fuxin Niu, Xibin Li, Luning Wang, Tianjin Marine Environmental Monitoring Central Station, China

COASTAL HYDRODYNAMICS V:

Sediment Transport & Nature-based Solutions 1 (Volume III)

Field Observation of the Near-bottom Sediment Transport during Typhoons in the Middle of the North Passage, Yangtze Estuary

Yao Ju, Yangtze Estuary Waterway Administration Bureau, China

Laboratory Study on the Effect of Artificial Sandbar on Beach Profile Evolution

Kezhao Fang, Feng Yi, Dalian University of Technology; Jiaotao Liu, Marine Geology Resource Survey Center of Hebei Province; Jiawen Sun, National Marine Environment Monitoring Center, China

Shore Evolution Modeling – Zohr Plant Case Study

C. Evangelista, E. Duchini, RINA Consulting S.p.A.; A. Gallus, ENI S.p.A.; M. Bernero, RINA External Consultant; O. Zanoli, M. Tirindelli, L. Sartini, M. Fruzzetti, RINA Consulting S.p.A., Italy

Experimental Observations of Overwash Deposits on Berm Beach with Shoreface Nourishments

Wenbin Zhang, Chi Zhang, Yuan Li, Dake Chen, Hohai University; Weiqi Dai, Yellow River Conservancy Commission, China

**COASTAL HYDRODYNAMICS VI:
Sediment Transport & Nature-based Solutions 2 (Volume III)**

Study on the Morphology Changes and Its Mechanism of the Jiangya Shoal in Yangtze Estuary

Yao Ju, Yangtze Estuary Waterway Administration Bureau, China

A Numerical Beach Evolution Model for Sedimentation of a Small Port Surrounded by Reef Zones

Tomoyoshi Koizumi, Mikuniya Co; Kotaro Tokura, Masamitsu Kuroiwa, Yuki Kajikawa, Tottori University, Japan

Experimental Study on Wave Attenuation by a Sandbar with Emerged Rigid Vegetation

Cuiping Kuang, Guangwei Huang, Xin Cong, Tongji University; Huixin Liu, Lei Zhu, Hebei Geological Prospecting Bureau, China

Experimental Observation on Wave and Profile Changes in a Sandbar-lagoon System with Emergent Aquatic Plants on the Sandbar Crest

Xin Cong, Cuiping Kuang, Xuejian Han, Tongji University; Lixin Gong, Hebei Geological Prospecting Bureau; Chao Shen, Tongji University, China

**COASTAL HYDRODYNAMICS VII:
Coastal Structures 1 (Volume III)**

An Efficient Iterative Dual Boundary Element Method for Oblique Wave Interaction with Breakwaters Having Perforated Thin Plates

Yang Zhao, Yong Liu, Aijun Li, Shuyue He, Ocean University of China, China

Hydrodynamic Performance of Junction Section of Different Breakwater Structures

Yunpeng Jiang, Tianjin Research Institute for Water Transport Engineering, China

Wave Numerical Research on Cruise Terminal

Keli Shen, Jianhui Liu, CCCC First Harbor Consultants Co., Ltd., China

Nearshore Wave Numerical Research on Cruise Terminal Breakwater

Jianhui Liu, Keli Shen, CCCC First Harbor Consultants Co., Ltd., China

Composite Modelling of Wind Waves in Designing of Port Hydraulic Structures

Izmail Kantarzi, Alexander Anshakov and Alexander Gogin, Moscow State University of Civil Engineering, Russia

**COASTAL HYDRODYNAMICS VIII:
Coastal Structures 2 (Volume III)**

Numerical Model for Predicting Wave and Nearshore Current Fields behind Submerged Breakwaters

Shuhei Miki, Masamitsu Kuroiwan, Yuki Kajikawa, Tottori University, Japan

Impact of New Cruise Terminal on Wave in Established Adjacent Marina

Keli Shen, Jianhui Liu, CCCC First Harbor Consultants Co., Ltd., China

A Simple Estimation of Wave Overtopping Rate on Revetment Taking the Varieties of Height and Setback Distance of Parapet into Account

Katsuya Hirayama, Port and Airport Research Institute, Japan

Analysis of Overflow and Wave Overtopping of the Scardovari Lagoon Levees

Luca Martinelli, Piero Ruol, Chiara Favaretto, University of Padova, Italy

Inside a Beach Drainage System: a Tridimensional Modeling

Piera Fischione, Daniele Celli, Davide Pasquali, University of L'Aquila, Italy; Gabriel Barajas, Benedetto Di Paolo, Javier L. Lara, University of Cantabria, Spain

COASTAL HYDRODYNAMICS IX: Ships & Ports (Volume III)

Modelling Complex Ocean Hydrodynamics: The Example of Mozambique Channel

Ludovica Sartini, Matteo Tirindelli, Giuseppe Malgesini, Omar Zanoli, RINA Consulting, Italy; Ricardo Argiolas, ENI, UK

Integrated Modeling of Sea-state Forecasts for Safe Navigation near and inside Ports: the Accu-Waves Platform

Christos Makris, Vasilis Baltikas, Yannis Androulidakis, Yannis Kontos, Nikolaos Nagkoulis, Ioannis Kazakis, Theofanis Karambas, Aristotle University of Thessaloniki; Andreas Papadimitriou, Anastasios Metallinos, Michalis Chondros, Maria-Eirini Emmanouilidou, Dimitra Malliouri, Georgios Klonaris, Vicky Tsoukala, Constantine Memos, National Technical University of Athens; Giannis Spiliopoulos, Dimitris Zisis, MarineTraffic, Greece

Simulation-based Framework for Evaluating the Layout of Large Oil Terminals

Haiyuan Yao, Dachuan Wang, Wentao Ding, Lei Mei, Min Dong,
Transport Planning and Research Institute; Guolei Tang, Dalian
University of Technology, China

Ship-to-Ship Mooring Analysis of LNG Jetty Terminal

Jianhui Liu, Keli Shen, CCCC First Harbor Consultants Co., Ltd., China

**A Ship Mooring Model Test-based General Layout Optimization for
Lekki Port, Nigeria under Long-period Swell Wave Condition**

Ran Tao, China Harbour Engineering Co; Jian-feng Mao, Zi-yang Tang,
CCCC FHD Engineering Co, China

COASTAL HYDRODYNAMICS X: Panel
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HIGH PERFORMANCE MATERIALS (Volume IV)

HPM I: Damage Mechanism Affecting HPM (Volume IV)

**Development of Corrosion Resistant Steel for Cargo Oil Tank of Crude
Oil Tanker**

Hiroshi Ikeda, Itaru Samusawa, Shunichi Tachibana, Kazuhiko Shiotani,
Eiji Mishima, JFE Steel Corporation, Japan

**Effect of Surface Hardness and Sour Environment on SSC Propagation
Behavior in TMCP Sour Linepipe**

Daichi Izumi, Takahiro Sakimoto, Junji Shimamura, Nobuyuki Ishikawa,
Joe Kondo, JFE Steel Corporation, Japan

**AC Corrosion Tests of Carbon Steel, AlZnIn Anodes and 25Cr Duplex
for Subsea Applications**

Kristian Solheim Thinn, Martin Høyer-Hansen, SINTEF Energy
Research, Norway

**Effect of Ni and Cr Alloying on the Sour Resistance of Linepipe
Steels**

Marc-Antoine Thual, Nuria Sanchez Mourino, Laura Moli Sanchez, Lode
Duprez, ArcelorMittal Global R&D Gent, Belgium

HPM II: Advances in Welding Techniques (Volume IV)

**Welding Performance of High Strength X100Q / S690QLHHO
Seamless Pipes without Preheating for Offshore Structural
Applications**

Daniel Strötgen, Vallourec Deutschland GmbH, Germany; Anais
Gourment, Vallourec Research Center France, France; Ralf Hojda,
Vallourec Deutschland GmbH, Germany

**Improving Structural Weld Fatigue Performance via Friction
Surfacing Techniques**

Tom McGaughy, Drew Shipley, EWI, USA

Metallurgy of Electrochemical Ionic Processes in Molten Slag during Underwater Wet Arc Welding

Sergey G. Parshin, Peter the Great St. Petersburg Polytechnic University; Alexey M Levchenko, Educational Scientific and Technical Center “Svarka”, Victor A. Karkhin, Pengfei Wang, Alexey S Maystro, Peter the Great St. Petersburg Polytechnic University, Russia

HPM III: Failure Analysis of HPM (Volume IV)

Weibull Stress Approach Considering a Mixed Mode Problem for Prediction of Brittle Fracture from Notches at the Butt Weld of the Beam End

Takuya Akahoshi, Koji Azuma, Sojo University; Tsutomu Iwashita, Ariake College; Yoshiaki Ibe, Sojo University, Japan

Structural Response of Submarine Pipeline Impacted by Falling Objects

Yanfei Chen, Yufeng Yan, Shaohua Dong, Fuheng Hou, Guoyan He, You Zong, Mingchang He, China University of Petroleum-Beijing, China

Simplified Formula for Tensile Strain of Buried Pipeline Subjected to Lateral Spreading due to Soil Liquefaction

Shoma Onuki, Masaki Mitsuya, Tokyo Gas Co., Ltd., Japan

Linking Information from Non-destructive Testing and Casting Process Simulation of Components Made of Nodular Cast Iron with the Cyclic, Strain-based Material Behavior Influenced by Dross

Christian Erz, Christoph Bleicher, Heinz Kaufmann, Fraunhofer LBF; Erik Hepp, MAGMA Gießereitechnologie GmbH, Germany

HPM IV : Advances in HPM (Volume IV)

Influence of the Chill Casting Process on the Cyclic Material Behavior of Nodular Cast Iron

Jan Niewiadomski, Christoph Bleicher, Heinz Kaufmann, Fraunhofer Institute for Structural Durability and System Reliability LBF, Germany

High Silicon Nodular Cast Iron for Lightweight Optimized Cast Components

Christoph Bleicher, Axel Kansy, Heinz Kaufmann, Fraunhofer LBF, Germany

Qualification of Offshore Grout, Background, Experience and Future Applications

Andreas Lervik, John O'Malley, Andrew Mcvey, Ole Martin Hauge, DNV Energy Systems, Norway

Relationship Between Strength Properties and Restrained Expansion Strain of High-fluidity Ductile-fiber-reinforced Concrete Using Recycled Aggregate with Expansive Additive

Takumi Anzai, Ken Watanabe, Hidekazu Sato, Tokai University, Japan

HPM V: Panel
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MECHANICS, RISK AND ANALYSIS (Volume IV)

Mechanics and Analysis 1 (Volume IV)

Experimental and Numerical Studies on Ultimate Load of Cracked Cylindrical Pipes

Zhiyuan Shen, Zixian Yu, Jingxi Liu, Yang Han, Longzao Zhou, Huazhong University of Science and Technology, China

Lightweight Design for Co-directional Corrugated Sandwich Bulkheads Using Topography Optimization

Fan Zhang, Deqing Yang, Shanghai Jiao Tong University, China

Assessment of Dropped PLET and Flowline near Live Gas Export Pipelines

Yang He, Chunhong Hu, Leqin Wang, Ying Zhang, Bo Wang, Offshore Oil Engineering Co., Ltd., China

Identification of System Transfer Function of a Ship Mounted Two-DoF Manipulator under Ocean Random Waves

Edwar Yazid, Midriem Mirdanies, Rizqi Andry Ardiansyah, Indonesian Institute of Sciences, Indonesia

Study on Conformal Contact between Steel Shaft and Elastic Polymer Bearing Using Influence Coefficient Factors Method

Weixin Zhou, Yao Zhao, Jingxi Liu, Hua Yuan, Ganbo Zhang, Huazhong University of Science and Technology, China

Mechanics and Analysis 2 (Volume IV)

Design and Shock Resistance Analysis of Black Box in Floating Shock Platform

Haisong Xiao, Zeyu Shi, Marine Design & Research Inst. of China; Zhihao Liu, AVIC Shanghai Aviation Electric Co; Yue Tian, Marine Design & Research Inst. of China, China

Impact Frequencies of Subsea Pipelines by Anchoring and Trawling Based on AIS Data

Zhongqian Hu, Yu Liu, Zhong Li, CNOOC Research Institute; Yanbo Liu, Harbin Engineering University, China

Investigation of Traffic Vessel Collision on a Monopile Offshore Wind Turbine in Huangshayang H1-1 Offshore Wind Power

Lei Han, Hu Zhou, Fushun Liu, Ocean University of China, China

Design Formula for the Ship Plate under Severe Slamming

Bin Ma, Ling Zhu, Lanren Tian, Zhikui Zhu, Wuhan University of Technology, China

Mechanics and Analysis 3 (Volume IV)

A Comparative Study of Rod Theory and the Extended Hamilton Principle

Shiji You, Fushun Liu, Ocean University of China; Qiang Liu, Zhejiang Huadong Mapping and Engineering Safety Technology Co, China

Fatigue Reliability Assessment of Drill String Due to Stick-Slip Vibrations and Wave-Frequency Vessel Motions

Mohammad Javad Moharrami, Hodjat Shiri, Memorial University of Newfoundland, Canada

Experimental Study on the Biaxial Non-proportional Low-cycle Fatigue Crack Growth Behavior of Hull Inclined Cracked Plate

Wenling Tu, Junlin Deng, Hualin Tang, Dawei Dong, Beibu Gulf University, China

Risk Analysis and Management of Offshore Platforms Based on the Whole Life Cycle

Jianbo Li, China Oilfield Services Ltd; Feng Guo, China University of Petroleum-Beijing; Miaozi Zheng, CNPC Offshore Engineering Co; Long Zhang, Fengyue Wang, Xiaodong Zhai, Menglan Duan, China University of Petroleum-Beijing, China

Risk Assessment of a Battery-Powered High-Speed Ferry Using Formal Safety Assessment

Haibin Wang, Evangelos Boulougouris, Gerasimos Theotokatos, Alexandros Priftis, Guangyu Shi, University of Strathclyde, United Kingdom; Mikal Dahle, Kolumbus AS; Edmund Tolo, Fjellstrand AS, Norway

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ADVANCED SHIP TECHNOLOGY (Volume IV)

ADVANCED SHIP I: Bow Wave & Resistance (Volume IV)

Resistance Performance Optimization of Trimaran based on the Multidisciplinary Optimization Platform

Hao Guo, Min Wang, Haichao Chang, Qiang Zheng, Wuhan University of Technology, China

Numerical Simulations of Bow Wave Breaking Flows of KCS Model in Different Froude Numbers

Ruoqing Gao, Cheng Liu, Decheng Wan, Shanghai Jiao Tong University, China

Ship Resistance and Wake Optimization of JBC Considering Hull-Propeller Interaction Based on CFD

Zhiqiang Liu, Xinwang Liu, Decheng Wan, Shanghai Jiao Tong University; Jing Xu, China Ship Development and Design Center, China

Optimization of Bulbous Bow of a 42m Trawler and Experimental Study on Ship Model Resistance

Liqun Xu, Cheng Zhao, Wei Wang, Zhejiang Ocean University Yonghe Xie, Marine Design and Research Institute of China, China

ADVANCED SHIP II: Cavitation (Volume IV)

Numerical Simulation of Propeller Cavitation Flows in Non-Uniform Flow Fields

Minsheng Zhao, Decheng Wan, Shanghai Jiao Tong University, China; Changhong Hu, Kyushu University, Japan

Numerical Analysis of Pressure Waves Emitted during Bubble Collapse near Free Surface

Xiaobin Yang, Cheng Liu, Decheng Wan, Shanghai Jiao Tong University, China

Numerical Simulations of Propeller Tip Vortices and Surface Cavitation Flows

Kang Liu, Liushuai Cao, Decheng Wan, Shanghai Jiao Tong University; Jing Xu, China Ship Development and Design Center, China

Numerical Investigations of NACA0015 Hydrofoil Cavitation Using Different Turbulence Models

Kaidong Ma, Liushuai Cao, Decheng Wan, Shanghai Jiao Tong University; Jing Xu, China Ship Development and Design Center, China

ADVANCED SHIP III: CFD (Volume IV)

Application of Machine Learning in Ship Computational Fluid Dynamics

Wanqian Fu, Tingqiu Li, Zuyuan Liu, Wuhan University of Technology, China; William Geraint Price, University of Southampton, UK

CFD Study of the Wind Load on a LNG Carrier

Baili Zhang, My Ha Dao, Xiuqing Xing, Jing Lou, Institute of High Performance Computing, Singapore

Analysis of the Influence of Span on Flow Field around a Three-dimensional Flexible Hydrofoil

Shunyuan Xu, Jiaming Wu, South China University of Technology; Chenghua Ma, Hua Liao, Guangzhou Shunhai Shipyards Ltd; Haotian Wang, Tian Zhang, South China University of Technology, China

Proper Orthogonal Decomposition based Reduced Order Method for Prediction of Wind Loads on LNGCarrier GALEA

Xiuqing Xing, My Ha Dao, Baili Zhang, Jing Lou, A*STAR, Singapore

ADVANCED SHIP IV: Design (Volume IV)

Study on the Fore Island Location of Superstructure of Container Ships

Min Zhou, Yu Han, Tao Chen, Zhi Kang Zhang, Xiao Long Xie, Marine Design & Research Inst. of China, China

Research on Lightweight Design of River-sea-going Ship based on Isight Platform

Wanyin Zhang, Zhiyong Pei, Jinghao Jiang, Longhui Xiao, Weiguo Wu, Wuhan University of Technology, China

Parametric Design of an Unmanned Hull with Triangular Lift Surface

Xiaopeng Gao, Dongyu Liu, Cong Huo, Naval University of Engineering, China

Study on the Mounting and Dismounting of Dismountable Thruster Installed on Multi-purpose FPSO

Bo Zhou, Junhong Liu, Bin Wu, Chunhui Li, Hankun Yang, Shanghai Waigaoqiao Shipbuilding Co., China

Research on the Optimization of FPSO Strength Test Schemes

Yan Yin, Tao Ma, Yuhang Wang, Weiwen Kong, Huan Zhang, Shanghai Waigaoqiao Shipbuilding Co, Ltd, China

ADVANCED SHIP V: Energy Saving Device (Volume IV)

A Study on the Performance of Rudder Bulb Fins System of KVLCC2 in Regular Head Waves

Win Naing Htay, Ayumi Magari, Yasuyuki Toda, Osaka University, Japan

The Effect of Energy Saving Devices (ESDs) on the Flow Field around the Stern of KVLCC2 Model Tanker

Benson Oyunge Mwangi, Hina Matsuura, Yasuyuki Toda, Osaka University, Japan

On the Effect of Energy Saving Devices on the Wake Hydrodynamics of a Bulk Carrier Model

Massimo Falchi, Giovanni Aloisio, CNR-INM, Italy

The Effect of Air Injection Position on the Drag Reduction of High-speed SWATH with Air Lubrication

Dapeng Zhang, Yunbo Li, Jiaye Gong, Kun Dai, Zheng Fu, Ang Li, Shanghai Maritime University, China

ADVANCED SHIP VI: High Speed Vehicles (Volume IV)

Simulations of a High-speed Deep-V Planing Hull by Using Dynamic Overset Grid

Chenliang Zhang, Marine Design and Research Institute of China, China; Dominic Chander, Queen's University of Belfast, UK; Jinbao Wang, Marine Design and Research Institute of China; Decheng Wan, Shanghai Jiao Tong University, China

Shape-form Estimation of ACV Skirt under Abnormal Cushion State

Zongke Zhang, Marine Design & Research Inst. of China; Shengjie Xu, Shanghai Jiao Tong University; Yifan Xiong, Marine Design & Research Inst. of China; Yujia Tang, Shanghai HaiXun Mechanical and Electronic Corporation, China

Design Optimization of a Stern-Fit Flap for a High-Speed Vessel

Zhao-Hui Li, Xiao-Qing Xiong, Yue-Feng Zhang, Hong-Mei Chen, Marine Design & Research Inst. of China, China

ANumerical Study on Shallow Water Effects of High-Speed Catamaran

Jiangtao Qin, Linlin Zhang, Lilan Zhou, Wuhan University of Technology, China

Numerical Study of Bubbly Wake Flows around a Transom Stern

Yuxiao Yang, Cheng Liu, Decheng Wan, Shanghai Jiao Tong University, China

ADVANCED SHIP VII: Maneuvering (Volume IV)

Study on Parameter Identification Methods for Steering Control in Model Experiments

Kazuhisa Otsubo, Kei Ishida, National Maritime Research Institute, Japan

Sensitivity Analysis of Hydrodynamic Derivatives for Lateral Force and Yawing Moment to Ship Manoeuvrability

Fakhri Akbar Ayub, Yoshitaka Furukawa, Hiroshi Ibaragi, Kyushu University, Japan

Particle Filter Based Ship State and Parameter Estimation for Vessel Maneuvers

Yufei Wang, Lokukaluge P. Perera, Bjørn-Morten. Batalden, UiT The Arctic University of Norway, Norway

CFD Based Turning Circle Maneuvering Simulations for a Merchant Ship with High-lift Rudder

Nobuaki Sakamoto, Ryosuke Suzuki, Takuya Ohmori, Hiroshi Kobayashi, Kunihide Ohashi, National Maritime Research Institute,; Masahiro Tamashima, Fluid Techno Co, Japan

ADVANCED SHIP VIII: Motion (Volume IV)

Analysis of Large-Scale Ship's Mooring Load Based On Time Domain Method

Chen Chen, Benyong Luo, Fanchao Wang, Yongpeng Shi, Marine Design & Research Inst. of China, China

Numerical and Experimental Study on the Steady and Unsteady Forward Speed Motion of a Catamaran

Yan Xing-Kaeding, Hamburg Ship Model Basin, Germany; Apostolos Papanikolaou, National Technical University of Athens, Greece

Identification of Ship Motion Parameters by Time-Series Analysis of Coupled Longitudinal Motion

Takaaki Hanaki, Munehiko Minoura, Osaka University, Japan

Numerical Investigation on Influence of Vertical Towed Array on Seakeeping Performance of a SWATH Vessel in Frequency Domain
Xiaoshuai Sun, China Marine Development and Research Center;
Chaobing Yao, Huazhong Univeresity of Science and Technology, China

ADVANCED SHIP IX: Optimization & Stability (Volume IV)

Advanced Data Analytics towards Energy Efficient and Emission Reduction Retrofit Technology Integration in Shipping

Lokukaluge P. Perera, UiT The Arctic University of Norway, Norway;
Nikolaos P. Ventikos, National Technical University of Athens, Greece;
Sven Rolfesen, Utkilen AS, Norway; Anders Oster, Wartsila Finland Oy, Finland

Sensitive Analysis of Voyage Optimization Algorithms for Ship Voyage Planning

Daiyong Zhang, Chalmers University of Technology, Sweden; Xiumin Chu, Wuhan University of Technology, China; Wengang Mao, Chalmers University of Technology, Sweden

Simulation Study of Multi-objective Optimization Site Selection for Emergency Rescue Site

Qinyang Chen, Chengyong Liu, Langxiong Gan, Bin Hu, Yaqing Shu, Jingsi Liu, Lei Zhang, Wuhan University of Technology, China

Life-Cycle Stability Management for Passenger Ships

Dracos Vassalos, Donald Paterson, Evangelos Boulougouris, Francesco Mauro, University of Strathclyde, United Kingdom

ADVANCED SHIP X: Performance in Waves (Volume IV)

Model Collapse Test in Waves Based on Distributed Optical Fiber

Jinghao Jiang, Zhiyong Pei, Wanyin Zhang, Longhui Xiao, Weiguo Wu, Wuhan University of Technology, China

Development of New Two-time-scale Model for Ship Manoeuvring in Waves

Jaehak Lee, Bo Woo Nam, Jae-Hoon Lee, Yonghwan Kim, Seoul National University, Korea

Effects of Homogeneous Solution in Enhanced Unified Theory on Pressure Computation around Ship Bow

Kantaro Suzuki, Masashi Kashiwagi, Osaka University; Hidetsugu Iwashita, Hiroshima University, Japan

Combined Performance of Innovative Biomimetic Ship Propulsion System in Waves with Dual Fuel Ship Engine and Application to Short-sea Shipping

Kostas Belibassakis, National Technical University of Athens, Greece; Sebastiaan Bleuanus, Wartsila R&D Engineering, Finland; Jacques Vermeiden, Huygens Engineers, Netherlands; Nicholas Townsend, University of Southampton, UK

ADVANCED SHIP XI: Power & Propeller (Volume IV)

High-efficiency Optimization Design of Marine Propeller based on p-system Diffusion Algorithm and Parameter Model

Long Zheng, Shunhuai Chen, Hao Wang, Wuhan University of Technology, China

Design Study of a Hybrid Power System for a Ferry Using Open Simulation Platform

Kevin Koosup Yum, SINTEF Ocean; Kristine Bruun Ludvigsen, DNV GL, Norway

The Influence of Leading-edge Tubercles on the Hydrodynamic Performance and Propeller Wake Flow Development of a Ducted Propeller

Callum Stark, Weichao Shi, University of Strathclyde, United Kingdom

ADVANCED SHIP XII: Ship Design (Volume IV)

SOFC Ammonia Fuel Supply System Safety Assessment

Michail Cheliotis, Nikoletta L Trivyza, Evangelos Boulougouris, Gerasimos Theotokatos, University of Strathclyde, United Kingdom

Effect of Heat Source Layout in Cargo Tank on the Cargo Oil Heating Process

Junjie Sun, Jinshu Lu, Yumeng Lyu, Zhejiang Ocean University, China

Experimental and Numerical Study on Local Line Rolling Forming Process

Zhenshau Wei, Yao Zhao, Huazhong University of Science and Technology, China

Damping Calculation of a Marine's Resonance Changer

Wei Chu, Yao Zhao, Ganbo Zhang, Huazhong University of Science and Technology, China

ADVANCED SHIP XIII: Strength (Volume IV)

Numerical and Experimental Studies on the Ultimate Strength of Cracked Stiffened Plates under Uniaxial Cyclic Loads

Kang Hu, Ping Yang, Tian Xia, Yuelin Song, Wuhan University of Technology, China

Study on the Ultimate Strength of Stiffened Panels with High Strength Steel

Wei Qian, Lu Wen, Zhao Jun Song, Wuhan University of Technology, China

Experimental Study on the Collapse Behaviour of Stiffened Panels with and without Cut-out

Zhao Jun Song, Wuhan University of Technology; Ming Cai Xu, CISSE; Wei Liu, Bohai Shipyard Group Co; Jin Pan, Wuhan University of Technology, China

Numerical Investigation on the Buckling Response of Stiffened Panel Subjected to Biaxial Compression with Non-linear Equivalent Single Layer Approach

Teguh Putranto, Mihkel Kõrgesaar, Tallinn University of Technology, Estonia

ADVANCED SHIP XIV: Waterjet & Pumpjet (Volume IV)

Research of Experiment and Calculation on the Steering and Reversing Unit of Waterjet Propulsion

Jun Wang, Xueqin Liu, Peng Yan, Yan Zhang, Zhihong Zhai, Science and Technology on Water Jet Propulsion Laboratory, China

Prediction of Open Water Performance of a Ducted Propeller by RANS and DES Methods

Xidi Zhang, Liushuai Cao, Decheng Wan, Shanghai Jiao Tong University; Feifei Shi, China Ship Development and Design Center, China

Numerical investigation on Pressure Fluctuation Characteristics of Axial Flow Pump

Jian-shuai Dong, Zi-ru Li, Wei He, Wuhan University of Technology, China

Numerical Calculation and Experimental Verification of Thrust of a Waterjet Monohull Model

Zhiyuan Zhang, Min Zhou, Luyi Wang, Jianguo Liu, Marine Design & Research Inst. of China, China

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