June 21–26

Osaka, Japan

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The Nineteenth (2009) International

Offshore (Ocean) and Polar Engineering Conference

AND

HYDRODYNAMICS

COMPUTATIONAL FLUID DYNAMICS

VORTEX–INDUCED VIBRATIONS

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Osaka International Convention Center
Osaka, Japan; June 21–26

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TECHNICAL PROGRAM

The Nineteenth (2009) International Offshore and Polar Engineering Conference

Osaka, Japan, June 21–26, 2009

The number at end of the session title indicates the tentative number of the proceedings volume. Only the changes on titles or authors the ISOPE-2009 Technical Program Committee (TPC) received in writing before January 29, 2009 are reflected in this program. Final corrections will be updated in the Conference Proceedings of peer-reviewed papers and the Final Program. Proceedings CD-ROM (ISBN 978-1-880653-53-1; ISSN 1098-6189) will be available as a set of 4 volumes (3,500 pp. est.) from ISOPE during and after the Conference.
Proceedings papers are **indexed** by **Engineering Index** and Compendex and others.

SUNDAY, June 21

Conference Reception

Sponsored by Tsuneishi Holdings Corporation

17:00 Sakura Room, Rihga Royal Hotel, 2F

MONDAY 09:00

1. Opening General Session:

OFFSHORE AND ARCTIC REVIEW—2009 (V. 1)

Monday June 22 09:00 Rm 1003, 10F

Chair: Naito, S, Osaka Univ, Japan
Co-Chair: Jiang, X, China National Offshore Oil Corp., CNOOC, China

Conference Opening Address
Knapp, R H, President, ISOPE

Sustainable Development and Marine Transport in the Arctic Ocean -- A Perspective and Cold Regions Technology
Kitagawa, H, Ocean Policy Research Foundation, Japan

Goes Deep, China Oil and Gas Industry
Chen, W, Sr. Vice President, China National Offshore Oil Corp., China

Global Functional Organization - the Key to Successful Materials Technology Implementation
Wright, E J, ExxonMobil Development, USA

Deepwater: Past, Present and Future
Kapusta, S, Chief Scientist, Shell Global Solutions International BV, The Netherlands

VORTEX–INDUCED VIBRATIONS

46. VORTEX-INDUCED VIBRATIONS I (V. 3)

An Engineering Approach to VIV for Riser Interference
Saint-Marcoux, J-F, Acergy, UK; Blevins, R, Consultant; Wu, M, Acergy, USA

Parameter Study of Simplified Assessment of Fatigue Damage for Deep Sea Riser VIV
Zhang, Q, Zhang R, Dalian Univ of Tech, China

Nonlinear Multi-Mode Interactions in Subsea Risers Undergoing Vortex-Induced Vibrations
Srinil, N, Wiercigroch, M, Univ of Aberdeen; O'Brien, P, MCS International UK; Pavlovskaia, E, Univ of Aberdeen, UK

The Viscous Flow Induced by an Arbitrary Moving Cylinder
Chu, C C, Chen, B F, National Sun Yat-Sen Univ, Taiwan, China

Vortex-Induced Vibration Analysis of the Tendon Considering the Effect of Hull's Motion
Yan, G W, Xu, F, Harbin Inst of Tech; Ou, J P, Dalian Univ of Tech, China

Vortex-Induced Vibrations of Risers due to FPDSO Heave Motions
Lei, S, Zhang, W S, Yue, Q J, Lv, W, Dalian Univ of Tech, China

55. VORTEX-INDUCED VIBRATIONS II (V. 3)

The Effect of Wavy Surface on Vortex Shedding from an Inclined Cylinder in Turbulent Flow
Lam, K, Lin, Y F, Hong Kong Polytechnic Univ; Zou, L, Wuhan Univ of Tech; Liu, Y, Hong Kong Polytechnic Univ, China

Quasi-Steady Wake Oscillator Theory Applied to a Free Oscillation Problem of a Rigid Cylinder Undergoing VIV
Nishi, Y, Yokahama National Univ; Kokubun, K, Hoshino, K, Uto, S, National Maritime Research Inst, Japan

Numerical Study of Fluid Force Reduction on a Square Cylinder
Zhou, C Y, Wang, C, Harbin Inst of Tech, China

VIV and Wake-Induced Vibrations of Two and Three Cylinders Arranged In-Line
Etienne, S, École Polytechnique de Montréal, Canada; Fontaine, E, AMOG Consulting, Australia; Scolan, Y-M, École Centrale Marseille, France

Vertical Pipe in Pipe Marine Riser - Tow Tank Tests and VIV Observations
Derradji-Aouat, A, National Research Council of Canada, Canada

The Viscous Flow Induced by an Oscillating Circular Cylinder
Chu, C C, Chen, B F, National Sun Yat-Sen Univ, Taiwan, China

Pattern Analysis for the Vortex Induced Vibration of a Towed Cable
Jung, D H, MOERI/KORDI, Park, H I, Korea Maritime Univ, Korea

Vertical Riser VIV Simulation in Sheared Current
Huang, K, Chen, H C, Chen, C R, Texas A&M Univ, USA

Numerical Simulation of Flexible Multi-Pipe Systems Subject to Outer and Inner Flow
Chen, Z S, Kim W J, Mokpo National Univ, Korea; Yu, D Y, Ocean Univ of China, China

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HYDRODYNAMICS AND COMPUTATIONAL FLUID DYNAMICS

Plenary Presentation III (V. 3)

Wednesday June 24 08:00 Room 1008

Lagrangian Particle Method - Advanced Technology for Numerical Wave Flume
Gotoh, H, Kyoto Univ, Japan
Introduction by Kashiwagi, M, Osaka Univ, Japan

3. HYDRODYNAMICS I: CFD 1 – Particle Method (V. 3)

Wave Impact Calculations by Improved ISPH Methods
Khayyer, A, Gotoh, H, Kyoto Univ, Japan

Simulation of the Wave Run-up and Overtopping Using Particle Level Set Method and Immersed Boundary Method
Huang, C J, Lin, C Y, National Cheng Kung Univ, Taiwan, China

Numerical Parameters Influencing Two Dimensional Water Entry Simulations
Lee, H H, Hyundai Heavy Industries; Rhee, S H, Seoul National Univ, Korea

Two Phases Flows Unstructured Grid Solver: Application to Tsunami Wave Impact
Fraunie, P, Sambe, A, Golay, F, Université du Sud Toulon-Var; Marcer, R, Principia; Sous, D, Université du Sud Toulon-Var; De Jouette, C, Principia; Rey, V, Université du Sud Toulon-Var, France

A Fast-Marching Semi-Lagrangian Level Set Method for Free Surface Flows
Gu, H B, Causon, D M, Mingham, C G, Qian, L, Manchester Metropolitan Univ, UK

Simulation of Armor Blocks in Front of Caisson Breakwater by DEM-MPS Hybrid Model
Gotoh, H, Kyoto Univ; Ikari, H, NEWJEC Inc., Yasuoka, T, Kansai Electric Power Company, Japan

Lagrangian Particle Method for Tracking of Buoy Moored by Chain
Ikari, H, NEWJEC Inc.; Gotoh, H, Kyoto Univ, Japan

Computational Method for Fluid-Forces Acting on Rigid and Elastic Objects
Nozomu, K, Satoru, U, Kyoto Univ, Japan

Jack-up Leg Hydrodynamic Load Study by CFD Simulations
Zhang, B, Kang, C W, Lou, J, Inst of High Performance Computing, Singapore; Lee, S K, American Bureau of Shipping, USA; Yan, D, ABS Pacific, Singapore

13. HYDRODYNAMICS 2: CFD 2 – NWT (V. 3)

Numerical Wave Tank Study of a Wave Energy Converter in Heave
Hu, Z Z, Causon, D M, Mingham, C G, Qian, L, Manchester Metropolitan Univ, UK

Generation of Extreme Wave Composed of Ring Waves in a Circular Basin
Minoura, M, Takahashi, R, Naito, S, Osaka Univ, Japan

Wave Generation and Absorption Using Force-Controlled Wave Machines
Spinneken, J, Swan, C, Imperial College London, UK

Measurements of Regular and Irregular Wave in Circular Tank
Martins, J A A, Univ of Sao Paulo, Brazil

2D Finite Volume Algorithm to Develop a Wave Generator
Shafieefar, M, Tarbiat Modares Univ; Panahi, R, Transportation Research Inst, Iran

Computational Fluid Dynamic Simulations of Active Wave Makers
Maguire, E, Ingram, D, Univ of Edinburgh, UK

Nonlinear Solution for Vibration of Vertical Elastic Plate by Initial Elevation of Free Surface
He, G H, Kyushu Univ; Kashiwagi, M, Osaka Univ, Japan

Dynamic Responses of Moored Floating Dual Pontoon Structure in a Fully Nonlinear Numerical Wave Tank
Huang, C C, Tang, H J, National Sun Yat-Sen Univ, Taiwan, China

Wavelet Transform Analysis of Freak Waves and the Ringing Response of Vertical Cylinder in a Numerical Wave Tank
Pang, H L, Shanghai Jiao Tong Univ; Zhang, Q H, Han, T, Qin, C G, Tianjin Univ, China

22. HYDRODYNAMICS III: CFD 3 (V. 3)

Parallel Finite Element Simulation of Flow around a Circular Cylinder
Kakuda, K, Nihon Univ; Minura, S, Tokyo Metropolitan College of Technology, Japan

Application of LES and DES Turbulence Models on Flow around Bluff Bodies Using Cartesian Cut Cell Grids
Bai, W, Mingham, C G, Causon, D M, Qian, L, Manchester Metropolitan Univ, UK

Numerical Study on Motion of Submerged Body in Waves
Suzuki, H, Shimamura, T, Osaka Univ; Miura, K, Universal Shipbuilding; Kato, N, Osaka Univ, Japan

Numerical Simulation of 3D Submarine Turbidity Currents
La Rocca, M, Adduce, C, Mele, P, Sciortino, G, Univ RomaTRE, Italy

Large Eddy Simulation of Particle-Laden Flow by Using Solid/Liquid Two-Phase Flow Model
Harada, E, Gotoh, H, Kyoto Univ, Japan

Two-Dimensional Flow Simulation of Bingham Fluid by Multiphase Flow Numerical Model
Kawasaki, K, Osigo, K, Takasu, Y, Nagoya Univ, Japan

RANS Simulations of Ship Motions in Regular and Irregular Head Seas Using the SWENSE Method
Monroy, C, Ducrozet, G, Gentaz, L, Ferrant, P, Alessandrini, B, École Centrale de Nantes, France

Applying Computational Fluid Dynamics to Simulate Bank Effects
Lo, D C, Su, D T, Lin, I F, Chen, J M, National Kaohsiung Marine Univ, Taiwan, China

32. HYDRODYNAMICS IV: CFD 4 & MetOcean (V. 3)

Spatio-Temporal Behaviour of Wind and Sea States in the Hellenic Seas

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Soukissian, T H, Hellenic Centre for Marine Research, Greece; Tzortzi, E, Univ of Southampton, UK; Kokkali, A, Univ of Aegean, Greece

A Numerical Simulation Method of Typhoon Waves
Zhu, Z, Yang, Y, Zhou, K, Shanghai Jiao Tong Univ, China

Wave Height Forecasting Using Self-Organization Algorithm Model
Tsai, T M, Yen, P H, Huang, T J, National Cheng Kung Univ, Taiwan, China

Characteristics of Infragravity Waves Observed Along Japanese Coasts
Nakai, K, ECOH Corp; Noriaki, H, Kyushu Univ, Japan

Experiment in Area of the Mouth of Izmenchivoe Lake
Kovalev, P D, Inst of Marine Geology and Geophysics, RAS; Kurkin, A A, Novgorod State Technical Univ; Shevchenko, G V, Inst of Marine Geology and Geophysics, RAS; Chernov, A G, Nizhny Novgorod State Technical Univ; Kovalev, D P, Gorbunov, A O, Sakhalin State Univ, Russia

Observed Tidal Currents and the Characteristics of Principal Tidal Constituents in the South China Sea Deep Basin in 1997-1999
Zhang, T, First Inst of Oceanography; Li, P, Zhao, W, Zuo, J, Ocean Univ of China, China

Decadal and Long-Term Sea Level Variations at Pacific Coast of Japan
Gu, X L, Li, P L, Ocean Univ of China, China

Hydrodynamic and Thermohaline Circulation Model and Its Application
Abualtayef, M T, Kuroiwa, M, Khaled Seif, A, Matsubara, Y, Tottori Univ, Japan

42. HYDRODYNAMICS V: CFD 5 & MetOcean (V. 3)

Numerical Study on Generation of Cnoidal Waves and Induced Viscous Flow over a Wavy Bed
Li, T C, Tang, C J, National Cheng Kung Univ, Taiwan, China

Evolution of Stokes Wave Side-Band Instability along a Super Tank: Experiments and Saturation Modification of Tulin & Landrini NLS Model
Yang, R Y, Hwung, H H, Shugan, I V, Chiang, W S, National Cheng Kung Univ, Taiwan, China

Application of Wavelet Transfer to Spectral Analysis of Surface Wave Method
Ni, S H, Yang, Y Z, National Cheng Kung Univ, Taiwan, China

Simulation of Internal Waves in Two-Layer Fluids by a Two-Domain Boundary Element Method
Koo, W C, Univ of Ulsan, Korea

Structure of the Head of Gravity Currents in a Long Channel
Baba, N, Koue, J I, Osaka Prefecture Univ, Japan

An Implicit Three-Dimensional Hydrodynamic Model for Free-Surface Flows
Wang, K, Jin, S, Liu, G, Dalian Univ of Tech, China

Analysis of Marine Accident and Freak Wave Prediction with an Operational Wave Model
In, K, Waseda, T, Kiyomatsu, K, Univ of Tokyo; Tamura, H, JAMSTEC, Japan

52. HYDRODYNAMICS VI: CFD 6 & MetOcean (V. 3)

Numerical Simulation of Current under Waves, Tides, and Typhoon
Zhang, J, Liang, B C, Li, H, Ocean Univ of China, China

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Application of the Statistics of Extreme Value Theory on Non-Linear Ocean Waves
Liu, J D, Fugro Seismic Imaging AS; Krogstad, H E, Norwegian Univ of Science and Tech, Norway

Further Modification Practical Method for Estimating Directional Wave Spectrum by HF Radar
Lukijanto, Hashimoto, N, Yamashiro, M, Kyushu Univ, Japan

Simulation and Analysis of Ocean Waves in the Northwest Pacific Ocean
Zhu, Z X, Zhou, K, Yang, Y, Shanghai Jiao Tong Univ, China

Estimation of Sea Conditions in a Long Return Period around Japan
Ishida, S, Kokubun, K, National Maritime Research Inst, Japan

Study Wave Regimes Southern Okhotsk Sea on Annual Results of Continuous Observations
Kuznetsov, K I, Chernov, A G, Kurkin, A A, Nizhny Novgorod State Technical Univ, Russia

Comparisons between the Wind Wave Results from WAVEWATCH III and the Observed Data
Liu, S, Sun, J, Guan, C L, Ocean Univ of China, China

Numerical Modelling of 3D Oblique Waves by L-Type Multiple Directional Wave Generator
Shih, R S, Tungnan Univ; Chou, C R, Weng, W K, National Taiwan Ocean Univ, Taiwan, China

59. HYDRODYNAMICS VII: CFD 7 -Nonlinear (V. 3)

Extreme Loads Due to Wave Breaking Against Platform Column
Suyuthi, A, NTNU; Haver, S K, StatoilHydro, Norway

Numerical Simulation of Wind Effects on Breaking Solitary Waves
Yan, S, Ma, Q W, City Univ of London, UK

The Statistical Characteristics of Wave Forces on Vertical Cylinders in Shallow Water Area
Gao, Y Y, Yu, D Y, Li, C L, Ocean Univ of China, China

Numerical Simulation of Green Water Incident on Bow Deck
Kang, B H, Lee, Y G, Kim, N C, Yu, J W, Inha Univ, Korea

Numerical Investigation on Violent Wave Impact on Offshore Wind Energy Structures with Meshless Method
Zhou, J T, Ma, Q W, City Univ, UK; Zhang, L, Harbin Engineering Univ, China

Numerical Simulation of Wave Impact on the Structures Using Nested Grid
Li, X, Ren, B, Wang, Y, Dalian Univ of Tech, China

Refined Reproduction of a Plunging Breaking Wave and Resultant Splash-Up by 3D-CMPS Method
Gotoh, H, Khayyer, A, Kyoto Univ; Ikari, H, NEWJEC Inc., Hori, C, Kyoto Univ, Japan

Impulsive Wave Force due to Tsunamis Impinging and Overtopping an Impermeable Breakwater upon a Sloping Beach
Lin, T C, Hsiao, S C, Hwang K S, National Cheng Kung Univ, Taiwan, China

A Study on Practical Prediction Method for Disaster of Floating Vessels Induced by Tsunami and Development of Marine Tsunami Hazard Map
Masuda, K, Ikoma T, Otsuka, F, Suzuki, Uta, S, Nihon Univ, Japan

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77. HYDRODYNAMICS VIII: CFD 8 -Wave Forces (V. 3)

Wave Pressure Distributions of an Elastic Floating Structure Model Subjected to Harmonic Waves
Kawakami, Y, Endo, R, Polytechnic Univ, Japan

Numerical Analysis of the Forces Exerted on a Truncated Cylinder by Ship Waves
Sun, L, Dong, G H, Zong, Z, Dalian Univ of Tech, China

Jack-up Leg Hydrodynamic Load Prediction - a Comparative Study of Industry Practice with CFD and Model Test Results
Lee, S K, American Bureau of Shipping, USA; Yan, D, American Bureau of Shipping, Singapore; Zhang, B, Kang, C W, Inst of High Performance Computing, Singapore

The Reciprocal Form of Mean Wave Drift Force and Yaw Moment
Tsubogo, T, Osaka Prefecture Univ, Japan

Validation of Nonlinear Wave Load Precition Method Using Segmented Model Tests for Large Container Carrier
Kim, S G, American Bureau of Shipping, USA; Hong, S Y, KORDI, Korea; Yu, H C, American Bureau of Shipping, USA

Experimental Investigation of Wind Forces Acting on Container Ships
Fujiwara, T Tsukada, Y, Kitamura, F, Sawada, H, National Maritime Research Inst, Japan

A Study on Wind Pressure Characteristics of Ships with Large Superstructures
Momoki, T, Onishi, S, Katayama, T, Ikeda, Y, Osaka Prefecture Univ, Japan

86. HYDRODYNAMICS IX: Tsunami (V. 3)

Analytical Estimation of the Maximum Wave Height and the Inundation Distance in East Sri-Lanka Induced During the 2004 Indian Ocean Tsunami
Lin, C H, National Sun Yat-Sen Univ; Cheng, C Y, Fisheries Research Inst; Liu, J C, Chen, G Y, National Sun Yat-Sen Univ, Taiwan, China

Investigation of Tsunami Wave Runup over Vegetated Slopes
Chen, H L, National Univ of Singapore, Singapore; Lin, P, Sichuan Univ, China; Chan, E S, National Univ of Singapore, Singapore

Micro Uidic Study of the Triggering of Underwater Tsunamigenic Landslides
El Bettah, M, TU Braunschweig, Germany; Grilli, S T, Univ of Rhode Island, USA; Krafczyk, M, TU Braunschweig, Germany; Baxter C D P, Bollinger, K A, Univ of Rhode Island, USA

Field Survey on Effect of Coastal Vegetation to Reduce Tsunami Force in 2007 Solomon Island Earthquake
Hiraishi, T, Port and Airport Research Inst, Japan

Real-Time Probabilistic Prediction of Storm Water Level at Japanese Ports
Kawai, H, Port and Airport Research Inst; Hashimoto, N, Yamashiro, M, Kyushu Univ, Japan

Recording of Simushir and Nevelsk Tsunamis in the Kholmsk Port
Kovalev, P D, Shevchenko, G V, Kovalev, D P, Inst of Marine Geology and Geophysics, RAS; Chernov, A G, Nizhny Novgorod State Technical Univ, Russia

Tsunami Registration in the Harbors of Shikotan Island
Shevchenko, G, Shishkin, A, Bogdanov, G, Loskutov, A, Inst of Marine Geology and Geophysics, RAS, Russia

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94. HYDRODYNAMICS X: CFD 9 & Dynamics 1 (V. 3)

Numerical Simulation of Floating Body Motions in Finite Water Depth Using the 3D Transient Green Function
Liu, C F, Teng, B, Gou, Y, Dalian Univ of Tech, China

Time-Domain Computations of Ship Motion with Constant Forward Speed Using Finite Element Method
Nam, B W, Sung, H G, Hong, S Y, Maritime & Ocean Engineering Research Inst, Korea

Time-Domain Analysis of Nonlinear Ship Motion Responses Based on Weak-Scatterer Hypothesis
Kim, K H, Kim Y H, Seoul National Univ, Korea

Numerical Solutions of Hydrodynamic Interaction of Ships in the Time Domain
Qiu, W, Peng, H X, Memorial Univ of Newfoundland, Canada

Algorithm for Finding Extreme Motions of Forward Speed Vessels
Dhavalikar, S, Negi, A, Indian Register of Shipping, India

An Experimental Research on the Prediction of the Ship Motions Using Time-Series Analysis
Zhang, X, Ye, J, South China Univ of Tech, China

Numerical Simulation of Nonlinear High-Speed Planing Craft Motions in Waves
Peng, H X, Qiu, W, Memorial Univ of Newfoundland, Canada

Transfer of Non-Linear Seakeeping Loads to FEM Models Using Quasi Static Approach
Tuitman, J, Delft Univ of Tech, The Netherlands; Sireta, F-X, Malencia, S, Bureau Veritas, France; Bosman, T, Delft Univ of Tech, The Netherlands

104. HYDRODYNAMICS XI: CFD 10 & Dynamics 2 (V. 3)

Numerical Calculation of Wave-Making Resistance Generated by Submerged Moving Object
Shen, L, WorleyParsons, Singapore

Numerical Studies on Resistance Prediction Methods for Submerged Bodies
Fu, H P, Zhang, Y, Shanghai Jiao Tong Univ, China

Practical Green Function for Steady Flow about a Ship
Noblesse, F, NSWCCD, USA; Delhommeau, G, Ecole-Centrale de Nantes, France; Yang, C, George Mason Univ, USA

Kelvin Ship Wake Modification Due to Wind Waves
Shugan I V, Hwung, H H, Yang, R Y, National Cheng Kung Univ, Taiwan, China

Pure Loss of Stability of ONR Tumblehome in Following Seas
Hashimoto, H, Osaka Univ, Japan

An Experimental Study on Viscous Effects on Longitudinal Motion of Drifting Buoy
Katayama, T, Momoki, T, Osaka Prefecture Univ; Higuchi, Y, Kawasaki Shipbuilding; Tarao, Y, Osaka Prefecture Univ; Aso, H, Zeni Lite Buoy, Japan

113. HYDRODYNAMICS XII: CFD 11 & Multibody Dynamics 3 (V. 3)

Simulation of Multi-Body Systems in Waves
Doig, R, Kaeding, P, TKMS Blohm + Voss Nordseewerke, Germany

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Hydrodynamic Analysis for Side-By-Side Offloading
Bunnik, T, MARIN, The Netherlands; Voogt, A, Pauw, W, MARIN, USA

Two Ships Operating in Close Proximity in Rough Sea
Li, L, American Bureau of Shipping, USA

Numerical Studies on Nonlinear Hydrodynamic Interactions of Side-by-Side Moored Vessels in Extreme Waves
Lu, H D, Yang, C, Löhner, R, George Mason Univ, USA

Fully Nonlinear Hydrodynamic Interaction between Two 3D Floating Structures in Close Proximity
Yan, S, Ma, Q W, City Univ, UK

A Study on the Flow Pattern around a Multi-Submerged Body According to the Body Gap
Gim, O S, Ministry of Land Transport and Maritime Affairs; Lee, G W, Mokpo National Maritime Univ, Korea

Numerical Simulation of Wave-Current Flow Field around Pile Groups by a Vortex Method
Chen, B, Teng, B, Dalian Univ of Tech, China

Discrete Event/Discrete Time Simulation of Block Erection by a Floating Crane Based on Multibody System Dynamics
Cha, J H, Lee, K Y, Ham, S H, Seoul National Univ; Roh, M I, Univ of Ulsan; Park, K P, Suh, H W, Daewoo Shipbuilding & Marine Engineering, Korea

101. HYDRODYNAMICS XIII: Roll & Damping (V. 3)

Experimental and Numerical Analysis of the Roll Decay Motion for a Patrol Boat
Broglia, R, Boucasse, B, Di Mascio, A, Lugni, C, INSEAN, Italy

Parametric Roll of ONR Tumblehome in Head Seas
Hashimoto, H, Umeda, N, Sogawa, Y, Osaka Univ, Japan

Study on Assessment of Comfort and Roll Stabilization for Passenger Ships
Kim, J H, Kim, H Y, Seoul National Univ; Kim, D W, Kim, Y S, Daewoo Shipbuilding & Marine Engineering, Korea

Study on Nonlinear Roll Motion of Containerships in Waves
Kim, T Y, Song, K H, Kim, Y H, Seoul National Univ, Korea

Numerical Simulations of Viscous Flows with Induced Moving Discs in a Periodic Lid-Driven Cavity
Wan, D C, Shanghai Jiao Tong Univ, China

111. HYDRODYNAMICS XIV: Dynamics & Design (V. 3)

Variable Fidelity Optimization in Ship Design
Kim, H Y, Yang, C, Kim, H Y, George Mason Univ, USA; Chun, H H, Pusan National Univ, Korea

A Practical Optimization Tool for Hydrodynamic Design of Ship Hull Forms
Kim, H Y, Yang, C, Kim, H J, Löhner, R, George Mason Univ; Noblesse, F, NSWC-CD, USA

Numerical Simulation of Flow around a Pod Propeller
Li, W, Shanghai Jiao Tong Univ, China; Yang, C, George Mason Univ, USA

Dynamic Response Evaluations of Offshore Platform with Porous Cylinders
Su, P M, Kawano, K, Kagoshima Univ, Japan

Modelling Coastal Run-up by a Well-balanced Shallow Flow Solver

Liang, Q, Wang Y, Newcastle Univ, UK; Archetti, R, Univ of Bologna, Italy; Hall, J W Newcastle Univ, UK

A Fast ADI Method for Two-Dimensional Shallow Water Equations
Kim, H, Jang, C H, Lee, Y, Kookmin Univ, Korea

Dynamic Behavior of a Submersible Fish Cage
Lee, C W, Lee, J H, Lee, G H, Choe, M Y, Lee, M K, Song, D H, Pukyong National Univ, Korea

120. HYDRODYNAMICS XV: Dynamics 4 & Measurements (V. 3)

Development and Assessment of a High Precision Optical Wave Gauge
Payne, G S, Univ of Edinburgh; Richon, J-B, Laser & Imaging Sciences, UK

3-D Wave Field Measurements Using Reflected Light Image
Sanada, Y, Takayama, A, Toda, Y, Osaka Univ; Hamachi, S, Universal Shipbuilding, Japan

Measurement of Greenwater on a 3D Structure
Chang, K A, Ariyarathne, K, Mercier, R, Texas A&M Univ, USA

Application of Non-Metric Camera for In-Situ Measurement for Ocean Engineering Research
Wang, C C, Liao, Y C, National Sun Yat-Sen Univ, Taiwan, China

Application of a Pan/Tilt Control Camera in Coastal Image Research in His-Tzu-wan Bay
Hsiao, Y H, Chuang, S C, Huang, M C, National Cheng Kung Univ, Taiwan, China

Experimental Study of Breaking Wave Loads on Vertical Walls
Kang, H G, Sun, Y, Dalian Univ of Tech, China

Non-Homogeneity of Nearshore Wave Field from X-Band Radar Images
Feng, X, Yan, Y, Hohai Univ, China; Kao, C C, Wu, L C, National Cheng Kung Univ, Taiwan, China

Acoustic Tomography of Hydrophysical Processes in Ocean Shelf Zones
Strobykin, D S, Morgunov, Y N, V.I. Il'ichev Pacific Oceanological Inst, FEB RAS, Russia

Non-Intrusive Technique for Identifying Solute Dispersion in Porous Media Using Image Analysis
Inoue, K, Takenouchi, R, Matsunaga, N, Tanaka, T, Kobe Univ, Japan

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