

TECHNICAL PROGRAM

The Thirteenth (2003) International Offshore and Polar Engineering Conference Honolulu, Hawaii, USA, May 25-30, 2003

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-2003 Technical Program Committee (TPC) received in writing before January 2, 2003 are reflected in this program. Final corrections will be updated in the Conference Proceedings and the Final Program. Proceedings CD-ROM will be available as a set of 4 volumes (2,800 pp. est.) from ISOPE during and after the Conference.

SUNDAY

ISOPE Reception

17:00 Sunday, May 25

Pool Terrace

MONDAY 08:00

07:20

Author Briefing

Makai

Conference Opening

08:00

Mauka/Maloko

1. OCEAN TECHNOLOGY REVIEW (V. 1)

Monday

May 26

08:00

Mauka/Maloko

Chair: Koo, J Y, ExxonMobil Research & Engineering, USA

Co-Chair: Knapp, R H, Univ of Hawaii, USA

Design Challenges for Large Truss Spars

Gebara, J, Technip Offshore Engineering, Inc, USA

New Pipeline Codes — Have They Met the Expectations?

Collberg, L, Moshagen, H, Det Norske Veritas, Norway

Victor 6000: Design, Utilisation and First Improvements

Michel, Jean-Louis, IFREMER, France; Klages, M, Alfred Wegener Inst for Polar and Marine Research, Germany; Barriga, F J A S, Univ of Lisboa, Portugal; Fouquet, Y, Sibuet, M, Sarradin, P-M, Siméoni, P, Drogou, J-F, IFREMER, France

Deep Sea Unmanned Underwater Vehicles in JAMSTEC

Aoki, T, JAMSTEC, Japan

MONDAY 10:45

Monday **2. FPSO: CFD & Validation (V. 1)** May 26 10:45 Makai

Chair: Tanizawa, K, National Maritime Research Inst, Japan
Co-Chair: Ferrant, P, Ecole Centrale de Nantes, France

EXPRO-CFD : An Overview of Developments and Results
Gallagher, P, Atkins Process, UK

Measurement and Analysis of Loads, Wave Profiles and Velocity Patterns about a Vertical Cylinder in Waves
Borleteau, J P, SIREHNA ; Ferrant, P, Ecole Centrale de Nantes ; Martigny, B, SIREHNA ; Pettinotti, B, Ecole Centrale de Nantes, France

The Flow Around FPSOs in Steep Regular Waves
Huijsmans , R H M, MARIN, The Netherlands ; Borleteau, J P, SIREHNA, France

Numerical Investigation of Wave Interaction with a Fixed Vertical Circular Cylinder
Ferrant, P, Queutey, P, Visonneau, M, Ecole Centrale de Nantes, France

Numerical Models for SPAR Platform Dynamics
Dalheim, J, Finne, S, Nestegard, A, Ronaess, M, Skeie, G, Det Norske Veritas, Norway

EXPRO-CFD : Development and Validation of CFD Based Co-Simulation of SPAR/CALM Buoy Fluid Structure Interaction
Gallagher, P, Woodburn, P, Atkins Process, UK ; Ferrant, P, Ecole Centrale de Nantes ; Borleteau, J-P, Sirehna, France

Monday **3. HYDRODYNAMICS W-I: Waves 1 (V. 3)** May 26 10:45 Maloko

Chair: Noblesse, F, David Taylor Model Basin, USA

Estimation of Wave Climate and Its Long-Term Variability Around the Coasts of Korea
Yamaguchi, M, Hatada, Y, Ehime Univ, Japan

Characteristics of Ocean Waves around Japan Based on WAM Wave Hindcasting Data
Kawaguchi, K, Hashimoto, N, Port and Airport Research Inst, Japan

Quality Check Procedures on In-Situ Data from the Coastal Ocean Monitoring Net Around Taiwan
Kao, C C, Doong, D J, Chuang, L Z S, National Cheng Kung Univ; Lee, B C, Huafan Univ, Taiwan, China

A Potential Form of Boussinesq Equations and Its Application on Wave Diffraction from Cylinders

Teng, B, Zhao, M, Dalian Univ of Technology, China

Extremal Prediction of Storm Surge Elevation Related to Seasonal Variation

Dong, S, Ocean Univ of Qingdao, China; Wei, Y, Univ of Hawaii at Manoa, USA; Hau, X, Ocean Univ of Qingdao, China

4. GEOTECH: Soil Properties 1 (V. 2)

Monday May 26 10:45 Mauka

Chair: Matsui, T, Osaka Univ, Japan

Electrokinetics-Enhanced Chemical Stabilization of an Offshore Calcareous Soil

Shang, J Q, Mohamedelhassan, E, Univ of Western Ontario, Canada; Randolph, M F, Univ of Western Australia, Australia

An Effective Stress Path of K_0 -consolidated Marine Clays

Nishie, S, Wang, L, Chuo Kaihatsu Co; Hyodo, M, Yamaguchi Univ, Japan

Geotechnical Characterization of Submerged Dredged Materials

Lee, L T, US Army Corps of Engineers, USA

Calcareous Deposits, Hydrogen Evolution and pH on Structures under Cathodic Protection in Seawater

Maffi, S, IENI; Salvago, G, Magagnin, L, Politecnico di Milano; Benedetti, A, IENI; Pasqualin, S, Politecnico di Milano; Olzi, E, IENI, Italy

Interpretation of Stress Paths from Pressuremeter Tests in Sand

Silvestri, V, Ecole Polytechnique; Tabib, C, College Edouard-Montpetit, Canada

Applications of Dilative Behavior in Marine Soil

Lee, W F, Taiwan Construction Research Inst; Lin, C Y, Chen, J W, Ku, B H, National Cheng Kung Univ, Taiwan, China

5. HYDRODYNAMICS DF-I: Higher-Order Effects (V. 3)

Monday May 26 10:45 Ekahi

Chair: Kim, C H, Texas A & M Univ, USA

Co-Chair: Powers, E J, Univ of Texas at Austin, USA

On Frequency-Domain Volterra Modeling

Powers, E J, Jang, B C, Univ of Texas at Austin, USA

The Effect of Sea Severity on the Cross-Bi-Spectral Estimate of Quadratic Frequency Response Function for Surge-Exciting Forces

Kim, N S, Kim, C H, Texas A&M Univ, USA

On Third-Order Frequency-Domain Nonlinear System Identification

Nam, S W, Hanyang Univ, Korea; Powers, E J, Univ of Texas at Austin, USA

Second- and Higher-Order Effects in Steep Random Waves

Stansberg, C T, MARINTEK, Norway

Investigation of Two Methodologies for Nonlinear Response of Mini-TLP Tested at OTRC Wave Tank

Kumar, A, Kim, C H, Texas A&M Univ, USA

On the Prediction of Extreme Waves that an Ocean-Going Ship Encounters at Sea

Shinkai, A, Kyushu Univ; Ikeda, R, Namura Shipbuilding; Matsuo, K, Shin, S J, Kyushu Univ, Japan

6. HYDRODYNAMICS DF-II: Forces 1 (V. 3)

Monday May 26 10:45 Leahi

Chair: Koterayama, W, Kyushu Univ, Japan

An Efficient Technique for Derivation of the Kurtosis of Offshore Structural Response due to Random Morison Wave Loading

Najafian, G, Burrows, R, Tickell, R G, Univ of Liverpool, UK

Geometric Interpretation of the Least Square Error Method Used in Derivation of Morison Force Coefficients

Najafian, G, Burrows, R, Tickell, R G, Univ of Liverpool, UK

Cumulant Spectra of Morison Wave Force

Zheng, X Y, Liaw, C H, National Univ of Singapore, Singapore

Time-Domain Analysis of Motion Behavior and Structural Forces of a Semisubmersible in Extreme Waves

Clauss, G F, Schmittner, C E, Stutz, K, Berlin Univ of Technology, Germany

Hydrodynamic Forces on Submerged-Plate Heaving near a Free Surface

Takaki, M, Lee, S M, Hiroshima Univ, Japan

7. MECHANICS: STRUCTURE & MEMBRANE (V. 4)

Monday May 26 10:45 Ewa Ballroom

Chair: Boswell, L F, City Univ, UK

Co-Chair: Kang, H, Dalian Univ of Technology, China

A Study on Effects of Initial Deflection on Ultimate Strength of Stiffened Cylindrical Structure under Hydrostatic Pressure

Kim, K B, Park, J S, Hyundai Heavy Industries, Korea

The Development of Stress Measurement System in LNG Storage Tank

Kim, Y K, Oh, B T, Seo, H S, Hong, S H, Yoon, I S, Korea Gas Corp, Korea

Evaluation of Prototype Confirmation Test for Floating Pneumatic Rubber Fenders Based on ISO17357

Wan, M, Sakakibara, S, The Yokohama Rubber Co, Japan

Ultimate Strength Analysis of Ring-Stiffened Cylinders Considering Initial Imperfections

Park, C M, Park, D M, Univ of Ulsan, Korea

The Development of Kogas Membrane for LNG Storage Tank

Oh, B T, Hong, S H, Yang, Y M, Yoon, I S, Kim, Y K, Korea Gas Corp, Korea

Mechanism Investigation on Instability and Failure of Structures in Seabed-Wave-Structure Coupling System

Liu, H X, Tianjin Univ, China

Finite Element Methods for Cracked Components of Structures

Duan, M L, Gao, Z J, Qin, T Y, China Classification Society; Liu, C T, Inst of Mechanics, CAS, China

8. RISERS/CABLES/MOORING I (V. 2)

Monday May 26 10:45 Elima

Chair: Teigen, P, Statoil, Norway

Co-Chair: Zhao, C T, American Bureau of Shipping, USA

Analytical Methods for Predicting Displacements and Stresses in SCRs Subjected to Static Loading

Averbuch, D C, Le Cunff, C, IFP; Costa, D, TotalFinaElf, Biolley, F, IFP, France

Analytical Challenges of Deepwater Dry Tree Riser Systems for Different Vessel Types

Chedzoy, C, Lim, F, 2H Offshore Engineering, UK

A Variational Method for the Three-Dimensional Extensible Marine Pipes Transporting Fluid

Athisakul, C, King Mongkut's Univ of Technology, Thailand; Huang, T, Univ of Texas at Arlington, USA; Chucheepsakul, S, King Mongkut's Univ of Technology, Thailand

Time Domain Simulation of Wake-Induced Riser Clashing

Wu, W S, Huang, S, Univ of Glasgow and Strathclyde, UK

Catenary Equations for Buoyancy Can Supported Top Tension Riser Systems

Karayaka, M, Xu, L, Technip Offshore Engineering, USA

9. OCEAN & ARCTIC ENVIRONMENT I (V. 2)

Monday May 26 10:45 Ekolu

Chair: Izumiyama, K, National Maritime Research Inst, Japan

A Real-Time Three-Dimensional Environmental Modeling in Tolo Harbour

Chau, K W, Hong Kong Polytechnic Univ, Hong Kong, China

Baseline Assessment of Water Quality and Circulation Patterns in the Khalid and Al-Khan Sea Water Lagoons in Sharjah, United Arab Emirates

Shanableh, A, Omar, M, Univ of Sharjah, United Arab Emirates

Numerical Simulations of the Transport of Callianassa Larvae in Western Kyushu, Japan

Iwashita, J, Kyojuzuka, Y, Hamada, T, Kyushu Univ, Japan

Positioning of Artificial Benthic Habitats off Mito, Southwestern Coast of Taiwan

Tian, W M, National Sun Yat-sen Univ, Taiwan, China

The Environmental Quality of Shrimp Ponds in Mangrove Areas

Muneake, Y, Kochi Univ; Tuan, L X, Ehime Univ, Japan; Anh Dao, P T, Water and Air Environment Research Center; Quynh Dao, Q T, Vietnam National Univ-Hanoi, Vietnam

Nitrogen Budget of Artificial Salt Marsh in Inner Osaka Bay

Yanagawa, R, Yamochi, S, Osaka City Univ; Matsuhisa, S, Gifu Prefectural Government, Japan

10. COMPOSITES & SMART STRUCTURES I (V. 4)

Monday May 26 10:45 Eha

Chair: Dutta, P K, USACRREL, USA

Co-Chair: Wheat, H G, Univ of Texas at Austin, USA

Recent Advances in Inorganic Polymer Composites

Balaguru, P N, National Science Foundation, USA

Investigation into the Mechanical Behavior of Ceramicrete

Mouring, S E, Miller, P H, Burns, V, US Naval Academy, USA

ER/MR Smart Structures for Shock Wave Reduction

Kim, J H, Choi, S B, Jo, C H, Kim, K S, Inha Univ, Korea

Smart Pressurized Composite Cylinders

Knapp, R H, Structural Solutions/Univ of Hawaii; Shimabukuro, T, Structural Solutions; Robertson, I N, Structural Solutions/Univ of Hawaii, USA

Automation of Damage Index Method to Evaluate Structural Safety

Sikorsky, C, California Department of Transportation, USA

MONDAY 13:20

Plenary Presentation I (V.3)

Monday May 26 13:20 Maloko

Interaction Hydrodynamics of Two Bodies

Chwang, A T, Univ of Hong Kong, China
Introduction by Yeung, Ronald W, USA

Plenary Presentation II (V.4)

Monday May 26 13:20 Ewa Ballroom

High Strength Composites for Infrastructure: Current and Future Directions of Research

Balaguru, P N, National Science Foundation, USA
Introduction by Dutta, Piyush, USA

11. GEOTECH: Caissons and Anchors (V. 2)

Monday May 26 14:00 Makai

Chair: Wong, P C, ExxonMobil Upstream Research, USA
Co-Chair: Randolph, M, Univ of Western Australia, Australia

Suction Caisson Installation at Horn Mountain – A Case History
Audibert, J M E, Huang, J, Fugro-McClelland Marine Geosciences, USA

Pullout Behavior of Suction Caissons in Clay
Cao, J, Fugro-McClelland Marine Geosciences, USA; Phillips, R, Popescu, R, Memorial Univ of Newfoundland, Canada; Audibert, J M E, Al-Khafaji, Z, Fugro-McClelland Marine Geosciences, USA

Geotechnical Design of Suction Caisson in Clay
Huang, J, Cao, J, Audibert, J M E, Fugro-McClelland Marine Geosci, USA

Measured Response during Laboratory Installation of Suction Caissons
Rauch, A F, Olson, R E, Luke, A M, Univ of Texas at Austin; Mechem, E C, GRL Engineers, USA

Centrifuge Model Tests on Embedded Suction Anchor Loading Capacities
Kim, K O, Kim, Y S, Daewoo Inst of Construction Technology; Cho, Y, Daewoo Engineering & Consultant, Korea

The Behaviour of Drag-In Plate Anchors in Cohesive Soils
Elkhatib, S, Randolph, M, Univ of Western Australia, Australia

An Experimental Study of Inflatable Offshore Anchors
Newson, T A, Univ of Dundee; Brunning, P, Stolt Offshore, UK

12. HYDRODYNAMICS W-II: Waves 2 (V. 3)

Monday May 26 14:00 Maloko

Chair: Lalli, F, APAT, Italy

Radiation Condition and Farfield Waves
Noblesse, F, David Taylor Model Basin; Yang, C, Lohner, R, George Mason Univ; Hendrix, D, David Taylor Model Basin, USA

A Level-Set Approach for Naval Applications
Di Mascio, A, Muscari, R, INSEAN, Italy

The Effects of Directionality on Wave Transformation
Liu, S X, Yu, Y X, Dalian Univ of Technology, China

Recursive Bayesian Modeling for Online Estimations of Directional Wave Spectra
Iseki, T, Terada, D, Tokyo Univ of Mercantile Marine, Japan

Optimal Fitting Technique of a Ten Parameters Model to Observed Wave Spectra
Piscopio, R, Univ of Rome “La Sapienza”, Italy

Experimental Study on Directional Wave on Reef

Hiraishi, T, Hirayama, K, Port and Airport Research Inst; Uehara, I, Alpha Consultant, Japan

Monday **13. GEOTECH: Soil Properties 2 (V. 2)** 14:00 Mauka
May 26

Chair: Chen, J-W, National Cheng Kung Univ, Taiwan, China

Effect of Diatom Microfossils Content on Engineering Properties of Clays

Tanaka, M, Tanaka, H, Port and Airport Research Inst; Kamei, T, Shimane Univ; Hayashi, S, Tottori Prefecture, Japan

Evaluation of Stress History (OCR, σ_p) of Marine Clay Using CPT

Lee, K W, Yoon, G L, Chae, Y S, Kim, S S, Hanyang Univ, Korea

Effect of Drying Process on the Evaluation of Microstructure of Clays Using Scanning Electron Microscope (SEM) and Mercury Intrusion Porosimetry (MIP)

Kang, M S, Watabe, Y, Tsuchida, T, Port and Airport Research Inst, Japan

Sand Drain Based on Cyclic Strain-Path Controlled Triaxial Data

Stedman, J D, Uchida, K, Kobe Univ, Japan

Strength Characteristics of Brisbane Soft Clay

Oh, Y N, Balasubramaniam, Lee, Y H, Griffith Univ, Australia

Effect of Added Cement on Strength and Heavy Metals Leaching for Compacted Coal Fly Ash

Yoshimoto, N, Hyodo, M, Nakata, Y, Yamaguchi Univ, Japan; Hyde, A F L, Univ of Sheffield, UK

Settling Behavior and Zeta Potential of Kaolinite in Aqueous Media

Kaya, A, URS Corp, USA; Oren, A H, Yukselen, Y, Dokuz Eylul Univ, Turkey

Wavy Pattern of Grain Size Distribution in Alluvial Layer and Its Role on Engineering Properties

Fukuda, M, Suwa, S, Kato, Y, Shimonodan, T, Geo-Research Inst, Japan

Monday **14. HYDRODYNAMICS VIV-I: Vortex Shedding (V. 3)** 14:00 Ekahi
May 26

Chair: Chung, J S, ISOPE, USA

Co-Chair: Huang, S, Univ of Strathclyde and Glasgow, UK

Experimental Investigation of the Coupling Between In-Line and Cross-Flow VIV Response

Søreide, M, Statoil, Norway

Experimental Investigation of Small Magnus Effects on VIV Motions in Sub-Critical and Critical Reynolds Regimes

De Wilde, J, MARIN, The Netherlands; Triantafyllou, M S, MIT, USA

Numerical Study on Vortex Dislocations in Wake-Type Flow with Spanwise Non-Uniformity

Ling, G C, Zhao, H L, Niu, J, Inst of Mechanics, CAS, China

Numerical Simulation of Vortex Shedding by a Cylinder Array Using Vorticity Confinement

Yang, C, Lohner, R, George Mason Univ, USA

On Flow Vortex Shedding Behind Two Side-by-Side Cylinders

Hwang, RR, Academia Sinica; Peng, YF, Natl Chi-Nan Univ, Taiwan, China

Numerical Simulation of Vortex-Induced Vibration on a Circular Cylinder

Wanderley, J B V, Conceigco, C A L, COPPE/UFRJ, Brazil

A Numerical Investigation of the Hysteresis Effect on the Vortex-induced Vibration of an Elastically Mounted Cylinder

Saltara, F, Meneghini, J R, Fregonesi, R A, Univ of Sao Paulo, Brazil

Large-Reynolds-Number Flow across a Translating Circular Cylinder with High Oscillating Frequencies

Chen, B F, Yu, Y H, National Sun Yat-sen Univ, Taiwan, China

Hydrodynamic Forces on Cylinders with Helical Strakes

Bando, A, Mikata, N, Otsuka, K, Osaka Prefecture Univ, Japan

15. HYDRODYNAMICS DF-III: Forces 2 (V. 3)

Monday

May 26

14:00

Leahi

Chair: Choi, H S, Seoul National Univ, Korea

Co-Chair: Takagi, K, Osaka Univ, Japan

Nonlinear Dynamic Response and Vibration Control of a Coupling Equipment-Beamlike Ship System Subject to Regular Sea Waves

Xiong, Y P, Xing J T, Price, W G, Univ of Southampton, UK

Nonlinear Wave Forces on Floating Structure by VOF Method

Kobayashi, A, Obara, R, Yamaguchi, Y, Ikoma, T, Masuda, K, Nihon Univ, Japan

Higher-Order Spectral Analysis of the Interactive Behavior of a Pair of Flexible Cylinders under Unidirectional Wave Loading

Sibetheros, I A, Niedzwecki, J M, Texas A&M Univ, USA

The Radiation Problem of a Floating Body in a Two-Layer Fluid of Finite Depth

Kashiwagi, M, Ten, I, Nagao, T, Kyushu Univ, Japan

Designer Wave and Current Load Evaluations on Extreme Responses of Offshore Structures

Taniguchi, T, Tottori Univ; Kawano, K, Kagoshima Univ, Japan

Waves-Current-Floating Body Interactions in Water of Finite Depth

Malenica, S, Derbanne, Q, Zalar, M, Chen, X B, Bureau Veritas, France

16. HMOI I : Steel Development (V. 4)

Monday May 26 14:00 Ewa Ballroom

Chair: Asahi, H, Nippon Steel, Japan
Co-Chair: Petersen, C W, ExxonMobil Upstream Research, USA

Sessions 16, 25 and 34

ISOPE Symposium on High-Performance Materials in Offshore Industry (HMOI)

Introductory Remarks

Ayer, R, ExxonMobil Research and Engineering, USA

Metallurgical Design of Ultra-High Strength Steels for Gas Pipelines

Koo, J Y, Luton, M J, Bangaru, N V, Petkovic, R A, ExxonMobil Research and Engineering; Fairchild, D P, ExxonMobil Upstream Research, USA, Asahi, H, Hara, T, Sugiyama, N, Terada, Y, Tamehiro, H, Nippon Steel, Japan.

Development of Plate and Seam Welding Technology for X120 Linepipe

Asahi, H, Hara, T, Sugiyama, M, Maruyama, N, Terada, Y, Tamehiro, H, Koyama, K, Okita, S, Morimoto, H, Tomioka, K, Akasaki, H, Doi, N, Murata, M, Nippon Steel, Japan; Koo, J Y, Bangaru, N V, Luton, M J, ExxonMobil Research and Engineering; Fairchild, D P, Macia, M L, Petersen, C W, ExxonMobil Upstream Research, USA

Girth Welding Development for X100 and X120 Linepipe

Fairchild, D P, Macia, M L, ExxonMobil Upstream Research; Bangaru, N V, Koo, J Y, ExxonMobil Research and Engineering, USA

Development and Mechanical Properties of X120 Grade Line Pipe

Okaguchi, S, Makino, H, Hamada, M, Ikeda, T, Sumitomo Metal, Japan; Koo, J Y, Bangaru, N V, Luton, M J, ExxonMobil Research and Engineering; Fairchild, D P, Macia, M L, Petersen, C W, ExxonMobil Upstream Research, USA

Pipe Production Technology and Basic Properties of X120 Linepipe

Asahi, H, Tsuru, E, Hara, T, Terada, Y, Okita, S, Morimoto, H, Shinada, K, Miyazaki, H, Yoshita, T, Doi, N, Murata, M, Ayukawa, N, Akasaki, H, Nippon Steel, Japan; D P, Macia, M L, Petersen, S W, ExxonMobil Upstream Research, Koo, JY, Bangaru, NV, Luton, MJ, ExxonMobil Research and Engineering, USA

Full-Size Testing and Analysis of X120 Linepipe

Papka, S D, Duffy, B W, Oslo, E, Stevens, J H, Zhang, M M, ExxonMobil Upstream Research, USA

17. RISERS/CABLES/MOORING II (V. 2)

Monday May 26 14:00 Elima

Chair: Huang, T, Univ of Texas at Arlington, USA
Co-Chair: Buckham, B, Univ of Victoria, Canada,

Numerical Model for Assessment of Elastic, Resonant Response of Suspended Objects during Offshore Installation Operations

Teigen, P, Statoil, Norway

A Numerical and Experimental Study on Dynamics of a Free-Hanging Flexible Pipe in Water

Jung, D H, Park, H I, Korea Maritime Univ; Korea; Hong, Y P, Nakamura, M, Koterayama, W, Kyushu Univ, Japan

On the Tension-Compression Behaviour of Flexible Risers

Sousa, J R M, Ellwanger, G B, Lima, E C P, COPPE/UFRJ; Ribeiro, E J B, Petrobras, Brazil

Optimal Condition of Vibration Absorber Used in Water: Comprehensive Study by Quasi-Newton Method

Kobayashi, Y, Akita National College of Technology; Aso, K, Waseda Univ; Shibuya, Y, Takahashi, M, Akita Univ; Masaki, K, Akita National College of Technology, Japan

Numerical Simulations of Cable/Seabed Interaction

Gatti-Bono, C S, Perkins, N C, Univ of Michigan, USA

Three-Dimensional Dynamics Simulation of Slack Tether Motion in an ROV System

Buckham, B, Univ of Victoria, Canada; Driscoll, R, Florida Atlantic Univ, USA; Nahon, M, McGill Univ, Canada

Calibration of Mooring Line Analysis in Sand

Richardson, R, Bang, S, South Dakota School of Mines and Tech, USA

18. OCEAN & ARCTIC ENVIRONMENT II (V. 2)

Monday May 26 14:00 Ekolu

Chair: Kyozyuka, Y, Kyushu Univ, Japan

Experimental Study on Permeation of Oil into Sand

Otsuka, N, North Japan Port Consultants; Kanaami, K, Kondo, H, Hokkaido Univ; Takahashi, S, Maita, K, Nishimura-Gumi Inc; Saeki, H, Hokkaido Univ, Japan

Prediction of Oil-Ice Sandwich Formation

Izumiyama, K, Uto, S, National Maritime Research Inst; Sakai, S, Iwate Univ, Japan

Recent Developments in the Analysis of TDR Waveforms for Evaluation of Water Content and Subsurface Concentrations of Pollutants

Mohamed, A M O, UAE Univ, United Arab Emirates

Turbulence-Induced Vertical Exchange of Suspended Sediment, Temperature and Salinity of the Yellow River Estuary

Li, H J, Liang, B C, Lee, D Y, Ocean Univ of Qingdao, China

Typical Seasonal Circulation in the Bohai Sea

Liang, S X, Sun, Z C, Dalian Univ of Technology, China; Yamanaka, R, Nakatsuji, K, Osaka Univ, Japan

Flow Structure and Mixing Around Transverse Depth-Variied Barrier

Ifuku, M, Ehime Univ, Japan

Automatic Triangulation of Estuarine Arbitrary Planar Domain with Special Reference to Changjiang Estuary

Li, S S, Tianjin Univ; Shi, Z, Zhu, Z X, Shanghai Jiao Tong Univ, China

Hydrography of the Bosphorus Strait, and the Effects to Underwater Constructions

Yuksel, Y, Yildiz Tech Univ; Yalciner, A C, METU; Guler, I, Yuksel Project International AS; Mater, B, Istanbul Univ, Ozturk, F, Yildiz Tech Univ, Turkey

Monitoring the Water/Diesel Fuel Ratio in Heavy Fuel Oils as a Method of Reducing NOX Emissions from Marine Diesel Engines

Smith, G H, Reading, I, Owens, D, Heriot-Watt Univ, UK

19. COMPOSITES & SMART STRUCTURES II (V. 4)

Monday May 26 14:00 Eha

Chair: Knapp, R H, Univ of Hawaii, USA
Co-Chair: Mouring, S E, US Naval Academy, USA

Thermal Effects on Transition Behavior of FRP Composites for Use in Cold Regions

Karbhari, V, Univ of California at San Diego, USA

An Assessment of Vinyl Sheep Piles for Long Term Applications

Dutta, P K, US Army Cold Regions R&E Laboratory, USA

Influence of Moisture and Low Temperatures on Notched Hopkinson Bar Toughness in a Pultruded Reinforced Composite

Kellogg, K G, Kallmeyer, A R, North Dakota State Univ; Dutta, P K, US Army Cold Regions R&E Laboratory; Patil, R, North Dakota State Univ, USA

Evaluating the Effectiveness of Composite Wrapping

Wheat, H G, Berver, E W, Jirsa, J O, Fowler, D W, Univ of Texas at Austin, USA

FRP Repair of Corrosion Damage in Tidal Waters

Sen, R, Mullins, G, Univ of South Florida, USA

Environmental Exposure Characterization of Fiber Reinforced Polymer Materials Used in Bridge Deck Systems

Lopez-Anido, R A, Univ of Maine; Wood, K S, Maine Dept of Transportation, USA

17:00

ISOPE Technical Committee Meetings	Makai
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TUESDAY 08:00

20. OFFSHORE I Engineering 1 (V. 1)

Tuesday May 27 08:00 Makai

Chair: Capanoglu, C, I.D.E.A.S., Inc., USA
Co-Chair: Visser, M, NAM, The Netherlands

Rapid Prototyping Technology – New Potentials for Offshore and Abyssal Engineering

Wieneke-Toutaoui, B M, Gerber, H W, TFH Berlin, Germany

The Development of Cost Estimating Relationships for Offshore Structures

Cocodia, E O, Univ of Western Australia, Australia

Useful Force Models for Simulation of Multibody Offshore Marine Operations

Reinholdtsen, S-A, Mo, K, Sandvik, P C, MARINTEK, Norway

New Generation Tools to Offshore Engineering: Collaborative Immersive Visualization Environments

Dos Santos, C L N, Bacocoli, G, Landau, L, COPPE/UFRJ, Brazil

A Numerical Simulation of Transient Behavior of a Shackle Connection

Shibue, T, Yamazaki, Y, Hashizume, T, Muto, M, Ishikawajima-Harima Heavy Industries, Japan

21. HYDRODYNAMICS W-III: Waves 3 (V. 3)

Tuesday May 27 08:00 Maloko

Chair: Yim, J Z, National Taiwan Ocean Univ, Taiwan, China

Analysis of Two Dimensional Sea Surface Elevation Fields Using Spaceborne and Ground Based Remote Sensing Techniques

Rosenthal, W, GKSS Research Center; Lehner, S, Niedermeier, A, Borge, J C N, Schulz-Stellenfleth, J, German Aerospace Center; Dankert, H, Horstmann, J, GKSS Research Center, Germany

Air Flow Characteristics over Wind Waves on the Basis of the PIV Measurement

Mizutani, N, National Inst for Land and Infrastructure Management; Hashimoto, N, Port and Airport Research Inst, Japan

Wavelet Spectrum Extracted from Coastal Marine Radar Images

Doong, D J, Wu, L C, Kao, C C, Chuang L Z H, National Cheng Kung Univ, Taiwan, China

Sensing Water Surface Fluctuations through Sequences of CCD Images

Yim, J Z, Chou, C R, Huang, W P, National Taiwan Ocean Univ, Taiwan, China

22. GEOTECH: Soil Properties 3 (V. 2)

Tuesday May 27 08:00 Mauka

Chair: Kim, S S, Hanyang Univ, Korea

Co-Chair: Tsai, K J, Natl Pingtung Univ of Sci & Tech, Taiwan, China

The Study of the Influence Factors of Creep for Colluviums Slope Land by Using the Monitoring Data in Huafan University

Chao, C P, Huafan Univ, Taiwan, China

Effect of Specimen Size on Unconfined Compressive Strength Properties for Natural Clay Deposits

Sakamoto, R, Shogaki, T, National Defense Academy, Japan

Undrained Strength Properties of Holocene Pusan Clays

Shogaki, T, Nochikawa, Y, National Defense Academy, Japan; Jeong, G H, Dong-A Geological Engineering, Korea; Suwa, S, Geo-Research Inst, Japan

Influence of Salt Concentration on Microstructure of Ariake Clay

Negami, T, Onitsuka, K, Saga Univ, Japan

Cemented Behavior of Hydraulic Fill Materials

Chen, J W, Lin, C Y, Lee, W F, National Cheng Kung Univ, Taiwan, China

On-Line Pseudo-Dynamic Response Test on Stratified Ground Including Clay Layer

Takahashi, N, Sumitomo Construction; Hyodo, M, Yamaguchi Univ; Yamamoto, Y, Mitsui Construction; Kawamoto, Y, Kimura, S, Yamaguchi Univ, Japan

Experimental Study on Propagation Properties of Pore Water Pressure in Shirasu Soil Ground

Hayashi, S, Du, Y J, Saga Univ, Japan

23. COASTAL ENG I: Breakwater Dynamics (V. 3)

Tuesday May 27 08:00 Ekahi

Chair: Mizutani, N, Nagoya Univ, Japan

A Study on the Development of a Semi-Permeability Cylinder Type Breakwaters

Park, R S, Kwack, S H, Univ of Ulsan, Korea

Crown Height Effects on Stability of Flat Type Concrete Armor Blocks

Matsuda, S, Matsumoto, A, Nishigori, W, Hanzawa, M, Matsuoka, M, TETRA Technical Research Inst, Japan

Wave Forces Acting on Flap-Type Storm Surge Barrier and Wave Transmitted over It

Tomita, T, Shimosako, K, Port and Airport Research Inst; Takano, T, Ministry of Land, Japan

Numerical Analysis of Wave Acting on the Perforated Caisson Breakwaters

Chen, X F, Li, Y C, Wang, Y X, Dalian Univ of Technology, China

Deformation of Submerged Breakwater Head under Oblique Wave Incidence

Araki, S, Osaka Univ; Miyazaki, T, Penta-Ocean Construction; Yanagihara, T, Nijjima, H, Deguchi, I, Osaka Univ, Japan

Tetrapod Breakwaters Stability under Breaking Wave Conditions

Cevik, E, Yuksel, Y, Yildiz Tech Univ, Turkey

24. HYDRODYNAMICS DF-IV: Dynamics 1 (V. 3)

Tuesday May 27 08:00 Leahi

Chair: Chen, H C, Texas A & M Univ, USA

Co-Chair: Takaki, M, Hiroshima Univ, Japan

Dynamic Coupling of Seakeeping and Sloshing

Malenica, S, Zalar, M, Chen, X B, Bureau Veritas, France

Numerical and Experimental Study of the Flow in an Open Tank

Maisondieu, C, IFREMER; Alessandrini, B, Andrillon, Y, Gentaz, L, Ecole Centrale de Nantes, France

Evaluation of the 3D Flow Dynamics in a Moonpool

Maisondieu, C, IFREMER; Ferrant, P, Ecole Centrale de Nantes, France

A Study of the Elucidate for Ballast Tank's Fluid Motion on Ballast Water Exchange — Comparison with Numerical Simulation and Experiment in Two-Dimensional Tank

Kamada, K, Minami, K, Shoji, K, Tokyo Univ of Mercantile Marine; Shiotani, S, Kobe Univ of Mercantile Marine; Mita, S, Tokyo Univ of Mercantile Marine, Japan

A Three-Dimensional Finite-Element Computation for the Sloshing Impact Pressure in LNG Tank

Kim, J W, American Bureau of Shipping, USA; Sim, I H, Daewoo Shipbuilding & Marine Engineering, Korea; Shin, Y, American Bureau of Shipping, USA; Kim, Y S, Daewoo Shipbuilding & Marine Engineering; Bai, K J, Seoul National Univ, Korea

Evaluation of Sloshing Load on Membrane Type Containment System in LNG Carriers and Storage Units

Shin, S, Kim, J W, Lee, H, Hwang, C, American Bureau of Shipping, USA

25. HMOI II : Offshore Materials (V. 4)

Tuesday May 27 08:00 Ewa Ballroom

Chair: Hillenbrand, H-G, Europipe GmbH, Germany

Co-Chair: Takeuchi, I, Sumitomo Metals Industries, Japan

Recent Developments in High Strength Linepipe for Sour Environment

Inohara, Y, Ishikawa, N, Endo, S, NKK, Japan

Very Heavy Wall X-70 DSAW Pipes for Tension Leg Application

Liessem, A, Europipe GmbH; Schuetz, W, AG der Dillinger Huttenwerke; Grimpe, F, Mannesmannroehren-Werke AG; Reepmeyer, O, Europipe GmbH, Germany

Acceptance Criteria for Alloy 718 Microstructures in Sour Service

Ayer, R, Mueller, R R, Koo, J Y, ExxonMobil Research and Engineering; Watkins, M, ExxonMobil Development, USA

Precipitation Kinetics Simulated During the Solidification and Continuous Cooling of Ti-Nb Bearing HSLA Steels

Jun, H J, Pohang Univ of Science and Technology; Kang, K B, POSCO; Park, C G, Pohang Univ of Science and Technology, Korea

Characteristics of 1 Pass Welded Joints over 50kJ/mm of Heavy Thickness Shipbuilding Steel

Kim, C M, Lee, J B, Choo, W Y, POSCO, Korea

26. RISERS/CABLES/MOORING III (V. 2)

Tuesday May 27 08:00 Elima

Chair: Park, H I, Korea Maritime Univ, Korea
Co-Chair: Lim, F K, 2H Offshore Engineering, UK

Offshore Mooring Pile Design for Recovery of the Ehime Maru Fishing Vessel

Francis, M J, Yamasaki, M A, URS Corp, USA; Abbs, T, URS Corp, Australia

Recovery Operation of Transponder Mooring System Using Rope and Grapnel Rescue System for Shinkai 6500

Hashimoto, K, Sasaki, Y, Momma, H, JAMSTEC, Japan

Deformation and Mooring Force on Membrane and Net Sheet in Currents and Waves

Yasui, A, Taiyo Kogyo Corp; Deguchi, I, Osaka Univ, Japan

Use of Genetic Algorithms in the Design of Mooring System

Matter, G B, ABS Brazil; Sales, J S, Sphaier, S H, COPPE/UFRJ, Brazil

A Hybrid Model Test of a Deep Water OTEC Mooring System

Hong, S, Kim, J H, Hong, S W, Hong, S Y, KRISO/KORDI, Korea; Ravindran, M, Jalihal, P, NIOT, India

27. OCEAN & ARCTIC ENVIRONMENT III (V. 2)

Tuesday May 27 08:00 Ekolu

Chair: Sayed, M, National Research Council, Canada

A Simplified Moving Boundary Treatment in MEC Ocean Model

Yu, Z X, Kyozyuka, Y, Kyushu Univ, Japan

Laminar to Turbulent Flow Liquid-Liquid Jet Instability and Breakup

Tang, L J, Masutani, S M, Univ of Hawaii at Manoa, USA

A Numerical Simulation of a Tidal Current on a Tidal Flat

Ozawa, H, Masuda, K, Ikoma, T, Nihon Univ; Otsuka, F, Sanyo Techno Marine, Japan

A Numerical Simulation of HOC Transport with a Sorption-Desorption Kinematic Model

Chen, B F, Lin, Y J, National Sun Yat-sen Univ, Taiwan, China

Experimental Study on Flow and Tidal Exchange of Reservoir through the Gates of the Embankment in Isahaya Bay

Yokoyama, T, Kyozyuka, Y, Kyushu Univ, Japan

28. ADV SHIP, PROPULSION & OCEAN TECH II (V. 4)

Tuesday May 27 08:00 Eha

Chair: Naito, S, Osaka Univ, Japan
Co-Chair: Park, I K, Hyundai Heavy Industries, Korea

A Fish-Behavior Analysis with Numerical Simulation and Image Processing Technique

Nihei, Y, Tokyo Univ of Science; Kenichi, F, Original Engineering Consultants, Japan

Investigation into Underwater Fin Arrangement Effect on Steady Sailing Characteristics of a Sail-Assisted Ship

Minami, Y, Nimura, T, Fujiwara, T, Ueno, M, National Maritime Research Inst, Japan

On Aerodynamic Characteristics of a Hybrid-Sail with Square Soft Sail

Fujiwara, T, Hirata, K, Ueno, M, Nimura, T, National Maritime Research Inst, Japan

Chimera RANS Simulation of Propeller-Ship Interactions Including Crash-Astern Conditions

Chen, H C, Texas A&M Univ; Lee, S K, American Bureau of Shipping, USA

SWATH Hull Forms Optimisation by CFD Methods

Brizzolara, S, Univ of Genova, Italy

A Study on Container Securing System for Optimum Arrangement

Shin, S H, Won, S I, Choe, I H, Hyundai Heavy Industries, Korea

TUESDAY 10:45

Tuesday **29. OFFSHORE II: Engineering 2 (V. 1)** May 27 10:45 Makai

Chair: Wu, J-F, American Bureau of Shipping, USA
Co-Chair: Salpekar, V Y, Engineers India Ltd, India

A Qualification Approach to Reduce Subsea Equipment Failures

Mellem, T, Hussain, A, Det Norske Veritas, Norway

Lateral Flow Deformation Analysis of Sand Ground-Structure Subjected to Cyclic Loading as Wave Force and Its Evaluation

Yokohama, S, Miura, S, Hokkaido Univ, Japan

Pressure Character Research and Energy Consumption Analysis of Hydrocyclone with Gas Injection

Zhao, L, Univ of Bradford, UK

The Evolution of the Drilling Mud Pumping Systems: Related Safety Standards and Actual Risk Analysis Upgrades in Offshore

Romagnoli, R, Bosio, E, Politecnico di Torino, Italy

Long-Term Prediction of TMD Effect on Dynamic Response of a MDOF Offshore Fixed Platform

Shi, X, Matsui, T, Nagoya Univ, Japan

Fuzzy Optimization Design of the Offshore Jacket Platform with Consideration of Corrosion

Song, Y P, Wang, L C, Dalian Univ of Technology, China

30. HYDRODYNAMICS W-IV: Waves 4 (V. 3)

Tuesday May 27 10:45 Maloko

Chair: Kashiwagi, M, Kyushu Univ, Japan

A Numerical Study of the Wave, Current and Tide Interactions by a Coupling Model in the Bohai Sea During a Winter Storm

Li, P L, Ocean Univ of Qingdao; Zhao, W, Inst of Oceanology, CAS, China

Methods for Generating Non-Stationary Current, Wind and Wave Time Series in the Time Domain

Mo, K, Reinholdtsen, S-A, Yttervik, R, MARINTEK, Norway

Computation of Advancing Gravity Currents in Ambient Flows

Katuragi, T, Kan, S, Sakaguchi, Y, Baba, N, Osaka Prefecture Univ, Japan

Wave Models with Energy Dissipation Using Two Representations of Potential

Clyne, M J, Mullarkey, T P, NUI Galway, Ireland

General Unified Theory for Water Waves in Nonuniform Depth

Tang, C J, National Cheng Kung Univ, Taiwan, China

31. GEOTECH: Seabed and Slope Deformation (V. 2)

Tuesday May 27 10:45 Mauka

Chair: Brandes, H G, Univ of Hawaii, USA

Investigation of the Age of Submarine Slope Failures in the Gulf of Mexico

Baxter, C D P, Silva, A J, King, J W, Univ of Rhode Island; Bryant, W R, Texas A&M Univ, USA

Application of Surface Wave Methods for Measuring Very Near Surface Seafloor Stiffness Properties

Rosenblad, B L, Univ of Texas at Austin; Kalinski, M, Univ of Kentucky; Stokoe, K H, Univ of Texas at Austin; Kavazanjian, E, GeoSyntec Consultants, USA

Flow Deformation of Anisotropic Grounds Induced by Ocean Wave Loading and Oscillation of Coastal Structure

Kawamura, S, Muroran Inst of Technology; Miura, S, Hokkaido Univ, Japan

Non-linear Wave-Induced Seabed Instability: Dynamic Analysis

Cha, D H, Jeng, D S, Griffith Univ, Australia

Investigation on the Characteristics of Slope Stability for the South Cross-Island Highway in Taiwan

Tsai, K J, Lin, J B, Wang, H Y, National Pingtung Univ of Science & Technology, Taiwan, China

A Coastal Morphodynamic Model for Cross-Shore Sediment Transport

Li, F J, Dyt, C, Griffiths, C, CSIRO Petroleum, Australia

Ground Subsidence of Coastal Area around Ariake Bay and Collapse of the Bay Bottom

Onitsuka, K, Negami, T, Saga Univ, Japan

Coastal Subsidence in Golcuk During the 1999 Kocaeli Earthquake in Turkey

Rathje, E M, Univ of Texas at Austin; Karatas, I, GeoSyntec Consultants; Wright, S G, Univ of Texas at Austin; Bachhuber, J, William Lettis & Associates, USA

32. COASTAL ENG II: Harbor Facilities (V. 3)

Tuesday May 27 10:45 Ekahi

Chair: Cheung, K F, Univ of Hawaii, USA

Co-Chair: Yalciner, A C, Middle East Technical Univ, Turkey

Wave Reflection from a Slotted Seawall Having L-Shaped Bulkheads Inside

Fujita, T, Nagata, S, Matsushita, Y, Hitachi Zosen; Kakuno, S, Osaka City Univ, Japan

Reduction of Wave Overtopping and Water Spray with Using Flaring Shaped Seawall

Kamikubo, Y, Yatsushiro National College of Technology; Murakami, K, Miyazaki Univ; Irie, I, Kyushu Univ; Kataoka, Y, Takehana, N, Kobe Steel, Japan

Design and Construction Method for Renovation of No. 65 to No. 67 Wharfs in Kaohsiung Port

Chen, J Y, Liu, M C, Ding, J B, Duh, J T, China Engineering Consultants; Evin, B, International Sheet Piling Co, Taiwan, China

Ship Berthing at a Floating Pier

Huang, E T, Naval Facilities Engineering Service Center; Chen, H C, Texas A&M Univ, USA

Study of the Capacity of Breakwater with Channel to Exchange Water in Small Harbor in Longshore Current

Morita, S, Okumura Corp; Yoon, S J, Deguchi, I, Osaka Univ, Japan

33. HYDRODYNAMICS DF-V: Dynamics 2 (V. 3)

Tuesday May 27 10:45 Leahi

Chair: Francescutto, A, Univ of Trieste, Italy

Co-Chair: Inoue, Y, Yokohama National Univ, Japan

Hydrodynamic Properties of Rolling, Heaving, and Swaying Cylinders

Seah, R K-M, Yeung, R W, Univ of California at Berkeley, USA

Drift-induced Large Roll Motion of a Ship in Heavy Beam Seas

Ikeda, Y, Kuroda, T, Osaka Prefecture Univ, Japan

Flow Analysis of Rolling Rectangular Barge in Beam Sea Condition

Jung, K H, Chang, K A, Chen H C, Texas A&M Univ; Huang, E T, Naval Facilities Engineering Service Center, USA

Estimation of the Roll Damping Coefficient for Nonconventional Midship Sections

Yuck, R H, Lee, D H, Choi, H S, Seoul National Univ, Korea

34. HMOI III : Pipeline Technology (V. 4)

Tuesday May 27 10:45 Ewa Ballroom

Chair: Choo, W Y, POSCO, Korea,

Co-Chair: Fairchild, DP, ExxonMobil Upstream Research, USA

High-Strength Large Diameter Steel Pipes for Long Distance High Pressure Gas Pipelines

Graf, M, Hillenbrand, H-G, Europipe GmbH, Germany

High Strength Steel Pipeline Economics

Corbett, K T, Bowen, R R, Petersen, C W, ExxonMobil Upstream Research, USA

Collapse Pressure Prediction and Measurement Methodology of UOE Pipe

Tsuru, E, Asahi, H, Nippon Steel, Japan

HLP Simulation Method for Shear Fracture Propagation in Natural Gas Transmission Pipelines

Inoue, T, Nippon Steel; Makino, H, Sumitomo Metals; Endo, S, NKK; Kubo, T, Kawasaki Steel; Matsumoto, T, Kobe Steel, Japan

Residual Strength Assessment of Dents Generated by Explosive Loads in Pipelines

Useche, J F, Univ Technologica, Cartagena; Gomez, Univ de los Andes, Columbia

Analysis of Abnormal Fracture Appearances in Delop-Weight Tear Tests for High Toughness Pipeline Steels

Hwang, B C, Pohang Univ of Science and Technology; Yoo, J Y, POSCO; Lee, S, Pohang Univ of Science and Technology, Korea

35. RISERS/CABLES/MOORING IV (V. 2)

Tuesday May 27 10:45 Elima

Chair: Jo, C H, Inha Univ, Korea

Co-Chair: Cheng, L, Univ of Western Australia, Australia

Shell's Recent Experience in Polyester Mooring in Deepwater

Shu, H B, Shell International E&P; Loeb, D A, Shell E&P, USA

Fibre Moorings for Mobile Offshore Units

Abrahamsen, B, Statoil, Norway

Computational Model for the Analysis of Damaged Ropes

Beltran, J F, Williamson, E B, Rungamornrat, J, Univ of Texas at Austin, USA

An Experimental Study on Buoy Mooring System of a Floating Cylindrical Structure in Shallow Water

Kim, J H, Hong, S Y, Hong, S W, Hong, D C, Hong, S, KRISO/KORDI, Korea

Experimental Investigation vs Numerical Simulation of the Dynamic Response of a Moored Floating Structure to Waves

Dessi, D, INSEAN; Carcaterra, A, Diodati, G, Univ of Rome "La Sapienza", Italy

36. OCEAN & ARCTIC ENVIRONMENT IV (V. 2)

Tuesday May 27 10:45 Ekolu

Chair: Mohamed, A M O, UAE Univ, United Arab Emirates
Co-Chair: Smith, G H, Heriot-Watt University, UK

Development of Substance Circulation Simulation System Applied Geographic Information System

Okamoto, K, Nihon Univ, Japan

Application of Side Scan Sonar to Disposed Material Analysis at the Bottom of Coastal Water and River

Lee, J W, Korea Maritime Univ; An, D G, Global Ocean Technology, Korea

Measurement of the Visibility Range Near the Korea Coast by Using Video Cameras

Moon, I S, Korea Research Inst of Ships & Ocean Engineering, Korea

Development of an Inhabitable Quaywall for Improvement of Material Cycle

Miyoshi, J, Kozuki, Y, Univ of Tokushima; Kurata, K, Shimane Univ; Kitano, M, Murakami, H, Mizuguchi, H, Univ of Tokushima, Japan

37. ADV SHIP, PROPULSION & OCEAN TECH II (V. 4)

Tuesday May 27 10:45 Eha

Chair: Yao, T, Osaka Univ, Japan
Co-Chair: Fujiwara, T, National Maritime Research Inst, Japan

A Development of 3000-ton Class Submarine and the Study on Its Hydrodynamic Performances

Lee, S W, Hwang, Y S, Ryu, M C, Kim, I H, Shin, M S, Daewoo Shipbuilding & Marine Engineering, Korea

Numerical Approach for Ship Hull Girder Collapse Behavior in Waves

Masaoka, K, Okada, H, Osaka Prefecture Univ, Japan

Collapse Test on 1/10-Scale Hull Girder Model of Ship Carrier in Sagging

Yao, T, Osaka Univ; Fujikubo, M, Yanagihara, D, Hiroshima Univ; Fujii, I, Shin-Kurushima Shipyard, Japan

On the Snap-Through Phenomena at the Secondary Buckling of Rectangular Plate under Thrust

Murakami, C, Yao, T, Osaka Univ, Japan

FEM Parametric Modeling Applied to the Optimization of a Ship Structure

Hougaz, A B, Dias, C A N, Univ of Sao Paulo, Brazil

An Inverse Hull Design Problem in Minimizing the Wash Wave of the Ship

Huang, C H, National Cheng Kung Univ; Chen, P F, China Shipbuilding Corp, Taiwan, China

An Estimation of Hull Girder Response Due to Wave Excitation

Chung, J J, Shin, H S, Lee, H G, Park, I K, Hyundai Heavy Industries, Korea

Analysis and Evaluation of Vibrations in Superstructure of Ships Based on New ISO6954

Toyama, Y, Mitsui Engineering & Shipbuilding, Japan

TUESDAY 13:20

Plenary Presentation III (V.1)

Tuesday May 27 13:20 Makai

Petro-Canada East Coast — Innovative Quality Management in Offshore Development and Operations

Ewida, A, Power, R, Ludilow, J, Hopkins, R, Petro-Canada, Canada

Introduction by Chung, Jin S, USA

38. OFFSHORE III: FPSO/SPAR/VLFS 1 (V. 1)

Tuesday May 27 14:00 Makai

Chair: Chwang, A T, Univ of Hong Kong, China

Co-Chair: Matsui, T, Nagoya Univ, Japan

Hydroelastic Analysis of Pontoon-Type Circular VLFS

Utsunomiya, T, Watanabe, E, Kyoto Univ, Japan; Wang, C M, Natioanl Univ of Singapore, Singapore; Xiang, Y, Univ of Western Sydney, Australia

Transient Hydroelastic Response of Very Large Floating Structures by BE-FE Hybrid Method

Lee, D H, Choi, H S, Seoul National Univ, Korea

The Prediction Method of Hydroelastic Response of VLFS Include Sea Bottom Topographical Effects

Murai, M, Inoue, Y, Nakamura, T, Yokohama National Univ, Japan

A Numerical and Experimental Study on the Hydroelastic Behavior of the Box-Typed Very Large Floating Structure in Waves

Li, R P, Shu, Z, Wang, Z J, Shanghai Jiao Tong Univ, China

Effects of Submerged Vertical Plate and a Wave Energy Absorbed Air-Chamber on a Hydroelastic Response Reduction of VLFS

Ikoma, T, Maeda, H, Masuda, K, Nihon Univ; Rheem, C K, Univ of Tokyo; Arita, M, Nihon Univ, Japan

An Efficient Numerical Model for the Hydroelastic Analysis of Mat-Type VLFS

Hong, S Y, KRISO/KORDI, Korea; Kim, J W, ABS; Ertekin, R C, Univ of Hawaii; Shin, Y S, ABS, USA

A Basic Study on Hydroelastic Response of VLFS with Bending Stiffness Distribution in Waves

Tsubogo, T, Okada, H, Osaka Prefecture Univ, Japan

39. HYDRODYNAMICS W-V: NWT (V. 3)

Tuesday May 27 14:00 Maloko

Chair: Clément, A, Ecole Centrale de Nantes, France

Co-Chair: Malenica, S, Bureau Veritas, France

Numerical Simulation of Non-Linear Free Surface Wave Generation by CIP Method and Its Applications

Hu, C H, Kashiwagi, M, Momoki, T, Kyushu Univ, Japan

Freeform Surface Based Grid Generation for Wave Simulations

Schimmels, S, Berkahn, V, Univ of Hannover, Germany

Application of NWT to the Design of ART

Tanizawa, K, Taguchi, H, Sawada, H, National Maritime Research Inst, Japan

Numerical Simulation of 3D Nonlinear Wave-Body Interaction by Combining Potential and Rans Approach

Alessandrini, B, Ferrant, P, Gentaz, L, Ecole Centrale de Nantes, France

A Spilling Breaking Model for Naval Flows

Muscari, R, Di Mascio, A, INSEAN, Italy

Numerical Model of Nearshore Irregular Wave Based on Fully Nonlinear Boussinesq Equations

Gu, H B, Tianjin Univ; Li, S W, Tianjin Research Inst of Water Transport Engineering, China

40. GEOTECH : Foundation I (V. 2)

Tuesday May 27 14:00 Mauka

Chair: Allersma, H, Delft Univ of Technology, The Netherlands

Centrifuge Investigation of the Horizontal Capacity of Shallow Footings on Sand

Yun, G, Bransby, M F, Univ of Dundee, UK

Uplift Shaft Resistance Distribution in Sand Including Residual Loads

Al-Mhaidib, A I, King Saud Univ, Saudi Arabia

Experimental and Analytical Studies on the Mechanism of Bearing Capacity of Suction Foundation

Zen, K, Chen, G Q, Kasama, K, Kudo, M, Kyushu Univ, Japan

A Spudcan Foundation Model with Excess Pore Pressures

Dean, E T R, Soil Models Limited, UK

The Cut-Off Effect by Rock Grouting in the Area of Dam-Foundation

Hong, W P, Chung-Ang Univ; Yea, G G, Sambu Construction, Korea

Numerical Analysis of Stress-Strain States in Soil-Structure Interface Tests

Evgin, E, Univ of Ottawa, Canada; Fakharian, K, Amirkabir Univ of Technology, Iran; Mohareb, M, Univ of Ottawa, Canada

Spudcan Foundation Penetration into OC Clay

Hossain, M S, Hu, Y, Curtin Univ of Technology; Randolph, M, Univ of Western Australia, Australia

41. COASTAL ENG III: Waves (V. 3)

Tuesday

May 27

14:00

Ekahi

Chair: Teng, B, Dalian Univ of Technology, China

Statistical Forecasting of Swell Based on Weather Data for the Purpose of Judgment of Executing Cargo Loading in Harbors

Hashimoto, N, Kawaguchi, K, Port and Airport Research Inst, Japan

Wave Forecast at Harbor Entrance to Support Entering Ships under Rough Weather Conditions

Mizui, S, Hiroshima National College of Maritime Technology; Kubo, M, Kobe Univ of Mercantile Marine; Sasa, K, Hiroshima National College of Maritime Technology; Nagase, S, Mitsui Engineering & Shipbuilding, Japan

Harbor Wave Estimation with Partial Reflection Boundary of the Boussinesq Equation Model

Hirayama, K, Hiraishi, T, Port and Airport Research Inst, Japan

A VOF Numerical Model of Storm Waves on Coral Reefs

Monroy, J, Sato, M, Kagoshima Univ, Japan

Simulation of Wave Propagation Through Porous Structure in Shallow Water

Karim, M F, Tanimoto, K, Saitama Univ, Japan

Flow Field under Progressive Water Wave over the Sandy Ripples

Lin, M C, Chiang, Y C, Ting, C L, National Taiwan Univ, Taiwan, China

42. HYDRODYNAMICS DF-VI: Dynamics 3 (V. 3)

Tuesday May 27 14:00 Leahi

Chair: Yeung, R W, Univ of California at Berkeley, USA
Co-Chair: Clauss, G F, Technical Univ of Berlin, Germany

Hydroelastic Behavior of a Floating Circular Plate Advancing in Waves
Matsui, T, Nagoya Univ, Japan

The Effect of Clearance and Speed on the Relative Motions between Two Ships Advancing in Waves
Fang, M C, Cheng, G R, National Cheng Kung Univ, Taiwan, China

A Numerical Investigation on the Behaviour of Multiple Floating Bodies of Arbitrary Arrangements in Regular Waves
Inoue, Y, Ali, M T, Yokohama National Univ, Japan

Path Control and Directional Stability Considerations in Close Proximity Ship Towing
Papoulias, F A, Naval Postgraduate School, USA

Numerical Calculations of the Wave Climate Close to a Ship in Beam Seas at $F_n = 0$
Ekman, P, Chalmers Univ, Sweden

Nonlinear Time Domain Simulation of the Motions of Floating Bodies in Waves
Papanikolaou, A, Spanos, D, National Technical Univ of Athens, Greece

43. MATERIALS/WELDING/FATIGUE I (V. 4)

Tuesday May 27 14.00 Ewa Ballroom

Chair: Price, J C, SBM-IMODCO, USA
Co-Chair: Suga, Y, Keio Univ, Japan

Finite Element Simulation of Pear-Shaped Bead Cracking in Narrow Gap Welding
Shibahara, M, Kanazawa Inst of Technology; Itoh, S, Liang, W, Murakawa, H, Osaka Univ, Japan

The Effect of Residual Stress on the Stability of HY80 Spherical Shells
Gruenitz, L, Technical Univ of Hamburg-Harburg, Germany

An Improved Inherent Strain Analysis for the Prediction of Plate Deformations Induced by Line Heating Considering Phase Transformation of Steel
Jang, C D, Ha, Y S, Ko, D E, Seoul Natioanl Univ, Korea

Method for Predicting Deformation of Curved Structures under Assembly by Welding
Deng, D, Nagano, S, Osaka Univ; Shibahara, M, Kanazawa Inst of Technology; Murakawa, H, Osaka Univ, Japan

A Study on the Spot Heating to Correct the Buckling Distortion of the Deck Structure
Shin, S B, Kim, H G, Yoon, J G, Hyundai Heavy Industries, Korea

A Study on the Prediction of Shrinkage during Manufacturing of a Deckhouse of RIG

Lee, D J, Shin, S B, Hyundai Heavy Industries, Korea

Theoretical Study on Forming Twisted Longitudinals by Line Heating

Serizawa, H, Miyoshi, R, Osaka Univ; Shibahara, M, Kanazawa Inst of Technology; Murakawa, H, Osaka Univ, Japan

44. PIPELINES I (V. 2)

Tuesday May 27 14:00 Elima

Chair: Moshagen, H, Det Norske Veritas, Norway

Co-Chair: Sriskandarajah, T, KBR Pipeline Engineering Group, UK

The Chemical Compatibility of Thermoplastic Hose Umbilicals

Brodesser, M, Banks, W M, Pethrick, R A, Univ of Strathclyde; Brown, J, DUCO Ltd, UK

Strength Criteria and Analytic Predictions of Failure Pressures in Corroded Line Pipes

Zhu, X K, Leis, B N, Battelle Memorial Inst, USA

Low Cycle Fatigue of Buckled Pipelines

Gresnigt, A M, Delft Univ of Technology, The Netherlands; Karamanos, S A, Giakoumatos, E, Univ of Thessaly, Greece; Kreber, J, Waterbedrijf Europoort, The Netherlands

The Applicability of Elastic Plastic Fracture Mechanics Parameters for Defects in Pipeline Girth Welds Subjected to Cyclic Loading

Halsen, K O, Wästberg, S, Det Norske Veritas, Norway

Experimental Study on the Stability of Large Diameter Cylindrical Structure Sunken into Muddy Bed under Wave Action During Construction Period

Qin, C R, Pang, H L, Tianjin Univ, China

The Effect of the Temperature Distribution within a Pipeline Thermal Coating on Its Compressive Properties

Smith, G H, Nielsen, A, Heriot-Watt Univ, UK

Experimental Study on Pore Pressure Buildup Due to Horizontal Cyclic Loading of Pipeline

Takatani, T, Maizuru National College of Technology, Japan; Randolph, M F, Univ of Western Australia, Australia

45. POLAR & ICE I: Atmospheric Icing (V. 1)

Tuesday May 27 14:00 Ekolu

Chair: Farzaneh, M, Univ du Quebec a Chicoutimi, Canada

Co-Chair: Jiang, X L, Chongqing Univ, China

The Rayleigh-Taylor Instability as an Influence in the Spacing of Icicles on a Horizontal Cylindrical Body

Farzaneh, M, Karev, A R, Mousavi, M, Univ du Quebec a Chicoutimi, Canada

Infrared Laboratory Measurement of Ice Surface Temperature during Experimental Studies on the Formation of Ice Accretions

Karev, A R, Farzaneh, M, Univ du Quebec a Chicoutimi, Canada

Critical Condition Analysis of Conductor Icing and Dry and Wet Growth

Jiang, X L, Xie, S J, Sun C X, Shu, L C, Chongqing Univ, China

Flashover Performance and Process of Natural and Artificial Iced Insulator at High Altitude Districts

Shu, L C, Tian, Y C, Jiang, X L, Sun, C X, Chongqing Univ, China

AC Flashover Performance and Mechanism of Polluted and Iced IEC Standard Suspension Insulator String

Sun C X, Jiang, X L, Shu, L C, Chen, M Y, Chongqing Univ, China

Qualitative Comparison of Experiments and a High Resolution, Full-Scale 2D Model for Glaze Ice Accretion on a Non-Energized Station Post Insulator

Rudzinski, W J, Lozowski, E P, Univ of Alberta; Farzaneh, M, Univ of Quebec at Chicoumiti, Canada

Forecast of Aircraft Icing by Use of Boundary Layer Model Products: First Experience

Fuchs, W, German Military Geophysical Service, Germany

Spongy Icing Modelling; Progress and Prospects

Blackmore, R Z, The King's University College; Lozowski, E P, Univ of Alberta, Canada

Pulse Electrothermal De-Icing

Petrenko, V F, Higa, M, Deresh, L, Dartmouth College, USA

46. UNDERWATER VEHICLES & SYSTEMS I (V. 2)

Tuesday May 27 14:00 Eha

Chair: Momma, H, JAMATEC, Japan

Co-Chair: Gerber, H W, TFH Berlin; Germany

Which Stage Does the AUV "URASHIMA" Evolve?

Hyakudome, T, Aoki, T, Murashima, T, Tsukioka, S, Yoshida, H, Nakajoh, H, Ida, T, JAMSMTEC; Maeda, T, Hirokawa, K, Mitsubishi Heavy Industries; Ishibashi, S, Sasamoto, R, Tokyo Univ of Mercantile Marine, Japan

Biology-Inspired Precision Maneuvering of Underwater Vehicles (Part 2)

Kato, N, Tokai Univ; Liu, H, Inst of Physical & Chemical Resesarch (RIKEN); Morikawa, H, Shinshu Univ, Japan

Development of a Motion Simulator for Underwater Vehicles Using a Parallel Mechanism

Yamaguchi, S, Koterayama, W, Kyushu Univ, Japan

Fuel-Optimal Guidance and Tracking Control of AUV under Current Interaction

Kim, K S, Ura, T, Univ of Tokyo, Japan

Dynamic Analysis and Active Damping Control for Underwater Vehicle/Manipulator Systems

Kim, J H, Chung, W K, POSTECH, Korea

Development of the Homing and Docking Algorithm for AUV

Kim, J Y, Korea Advanced Inst of Science and Technology; Oh, K H, Samsung Heavy Industries; Hong, Y H, Oh, J H, Korea Advanced Inst of Science and Technology, Korea

Monitoring the Sandbank Exploitation with an AUV (Mauve): The Belgian North-Sea Kwintebank Case Study

Norro, A, Pison, V, Ozer, J, Royal Belgian Inst for Natural Sciences, Belgium

WEDNESDAY 08:00

47. OFFSHORE IV: FPSO/SPAR/VLFS 2 (V. 1)

Wednesday May 28 08:00 Makai

Chair: Kim, M H, Texas A & M Univ, USA

Co-Chair: Nakamura, M, Kyushu Univ, Japan

Wave Run Up and Wave Loads on Multicolumn Structure in Extreme Waves

Teigen, P, Statoil, Norway; Niedzwecki, J M, Texas A&M Univ, USA

Time-Domain Coupled Analysis of Deepwater TLP, and Verification Against Model Tests

Ormberg, H, Baarholm, R, Stansberg, C T, MARINTEK, Norway

Fully Nonlinear Wave Interactions with Stationary and Moving Bodies

Koo, W C, Kim, M H, Texas A&M Univ, USA

TLP Hull/Tendon/Riser Coupled Dynamic Analysis in Deep Water

Zou, J, ABB Lummus Global, USA

Prediction of FPSO Responses Coupled with Moorings and Risers

Luo, Y, SBM-IMODCO, USA

48. METOCEAN I: Waves/Sea States (V. 3)

Wednesday May 28 08:00 Maloko

Chair: Olagnon, M, IFREMER, France

On the Statistics of High Non-Linear Random Waves

Arena, F, Univ "Mediterranea" of Reggio Calabria, Italy; Fedele, F, Univ of Vermont, USA

Non-linear Space-Time Evolution of a High Wave Crest

Arena, F, Univ "Mediterranea" of Reggio Calabria, Italy; Fedele, F, Univ of Vermont, USA

Conditions for Rogue Waves by Combining a Spectral Wave Model with In Situ and Satellite Observations

Gunson, J R, Met Office, UK; Magnusson, A K, Norwegian Meteorological Inst, Norway; Schulz-Stellenfleth, J, German Aerospace Center, Germany

Can We Predict Freak Waves?

Toffoli, A, Katholieke Univ Leuven, Belgium; Lefèvre, J-M, Météo-France, France; Monbaliu, J, Katholieke Univ Leuven, Belgium; Savina, H, Météo-France, France; Bitner-Gregersen, E, Det Norske Veritas, Norway

Fitting Spatio-Temporal Random Field Models to Satellite Data from Ocean Surfaces

Baxevani, A, Rychlick, I, Lund Univ, Sweden; Wilson, R, Univ of Queensland, Australia

Modeling of Joint Probability of Significant Wave Height and Mean Wave Period

Minoura, M, Naito, S, Osaka Univ, Japan

49. GEOTECH: Foundation 2 (V. 2)

Wednesday May 28 08:00 Mauka

Chair: O'Neill, M W, Univ of Houston, USA

Co-Chair: Hong, W P, Chung-Ang Univ, Korea

Experimental Evaluation of Preload Effect on Skirt Suction Foundation

Masui, N, Ito, M, Inoue, A, Okajima, T, Obayashi Corp; Hermstad, J, Aker, Japan

Excessive Soil Plug and Anti-Failure Mechanism of Bucket Foundation During Penetration by Suction

Yang, S L, Grande, L O, NTNU, Norway; Qi, J F, Feng, X L, Ocean Univ of Qingdao, China

Electrokinetic Strengthening of Soil Surrounding Offshore Skirted Foundations

Micic, S, Shang, J Q, Lo, K Y, Univ of Western Ontario, Canada

The Relation between the Working Parameters of Enlarged-Bottom Equipment and Soil Properties

Hong, T T, Ho Chi Minh Univ of Technology, Vietnam; Tam, N N, Tamano, T, Osaka Sangyo Univ, Japan

Development and Applicability of Construction Control Technique for Embankment Using Apparent Electrical Resistivity

Ueno, N, Kataoka, M, Niimi, K, Dai Nippon Construction; Matsui, T, Osaka Univ, Japan

50. COASTAL ENG IV: Structure and Foundation (V. 3)

Wednesday May 28 08:00 Ekahi

Chair: Park, R S, Univ of Ulsan, Korea

Co-Chair: Lin, M C, National Taiwan Univ, Taiwan, China

Damage Characteristics of Wave Absorbing Seawalls Settlement due to Scouring

Yasuda, T, Port and Airport Research Inst; Takayama, T, Kyoto Univ, Japan

Stability of Hollow Light Caisson on Soft Mud against Waves

Maeno, Y, Nihon Univ; Takatani, T, Maizuru National College of Technology, Japan

In-Situ Observation System for Seismic Behavior of Gravity-Type Quay Wall

Sasajima, T, Hokkaido Development Bureau; Sakikawa, M, Civil Engineering Research Inst of Hokkaido; Miura, K, Toyohashi Univ of Technology; Otsuka, N, North Japan Port Consultants, Japan

Numerical Analysis of the Earth Pressure during Earthquake on the Gravity-Type Quay Wall

Inoue, K, Public Work Research Inst; Miura, K, Toyohashi Univ of Technology; Otsuka, N, North Japan Port Consultants; Nakajima, K, Hokkaido Univ; Yoshida, N, Oyo Corp; Sasajima, T, Hokkaido Development Bureau, Japan

Damage to Gravity-Type Quay Wall Associated with Earthquake-induced Liquefaction and Its Seismic Design

Sasajima, T, Hokkaido Regional Development Bureau; Kitahara, M, Civil Engineering Research Inst of Hokkaido; Ueda, H, Hokkaido Regional Development Bureau; Otsuka, N, North Japan Port Consultants; Miura, K, Toyohashi Univ of Technology, Japan

Similitude and Stability of Rubble Unequal in Weight and Shape"

Koh, R, Port Hydraulics Center of Ministry of Transport, Turkey

51. GEOTECH: Soil Mechanics (V. 2)

Wednesday May 28 08:00 Leahi

Chair: Audibert, J M E, Fugro-McClelland Marine Geosciences, USA

Frost Heaving Pressure Characteristics of Frozen Soils in Korea: A Laboratory Test

Shin, E C, Park, J J, Univ of Incheon, Korea; Das, B M, California State Univ Sacramento, USA

Development and Applicability of Construction Control Technique for Embankment Using Apparent Electrical Resistivity

Ueno, N, Kataoka, M, Niini, K, Dai Nippon Construction; Matsui, T, Osaka Univ, Japan

Investigation of Rainfall-Induced Highway Slope Failure After Earthquake in the Ali-San Area, Taiwan

Lin, H M, Lee, T L, Leader Univ; Lee, D H, National Cheng Kung Univ, Taiwan, China

Strain-Path Control of Ko Consolidation of Marine Clays

Uchida, K, Stedman, J D, Kobe Univ, Japan

Sand Drain Design Based on Cyclic Strain-Path Controlled Triaxial Data

Stedman, J D, Kobe Univ, Japan

A Prediction of Dredged and Reclaimed Ground Behavior Applied Lateral Vacuum Consolidation Method

Kang, M C, Lee, S, Univ of Seoul, Korea

Contaminant Transport Coupled Consolidation Analysis Using Chemo-Elasto-Viscoplastic Model of Clays

Abe, N, Osaka Univ, Japan

52. MATERIALS/WELDING/FATIGUE II (V. 4)

Wednesday May 28 08:00 Ewa Ballroom

Chair: Murakawa, H, Osaka Univ, Japan

Co-Chair: Chiew, S-P, Nanyang Technological Univ, Singapore

New Technical Issues in Materials Engineering and Fabrication for Deepwater Hydrocarbon Development

Price, J C, SBM-IMODCO, USA

New Ways of Application of Steels with the Bainite and Acicular Ferrite Structure

Bolshakov, V I, Pridneprovsk State Academy of Civil Engineering and Architecture, Ukraine

Changes of Crystallite Orientation Distribution in TiCN Thin Films Due to Bias Voltages

Gotoh, M, Kanazawa Univ, Japan

Measurement of Elastic Constant Concerning Various Industrial Materials by Neutron Diffraction Method

Saitoh, T, Kanazawa Univ; Minakawa, N, Morii, Y, Japan Atomic Energy Research Inst; Sasaki, T, Hirose, Y, Kanazawa Univ, Japan

The Study on Sintering Process of Ni₃Al Intermetallic Compound

Murotani, T, Kanazawa Univ; Hirose, H, Kinjo Univ; Ikenaga, A, Osaka Prefecture Univ, Japan

Increasing of Steel Strength by the Method of Thermal and Thermomechanical Treatment

Scherbakova, M E O, Bolshakov, V, Pridneprovsk State Civil Eng Academy; Zherbin, M, State Tech Univ of Construction; Shashkina, N, Pridneprovsk State Civil Eng Academy, Ukraine

Microwave Nondestructive Testing of Protective Coatings and Paints for Offshore Applications

Ghodgaonkar, D K, Majid, A M W A, Hamzah, N H, Al-Mattarneh, H M, MARA Univ of Technology, Malaysia

53. PIPELINES II (V. 2)

Wednesday May 28 08:00 Elima

Chair: Gresnigt, A M, Delft Univ of Technology, The Netherlands

Co-Chair: Brac, J, Institut Francais du Pétrole, France

Deep Water Sealines Installation by Using the J-lay Method – The Blue Stream Experience

Pulici, M, Saipem SpA, Italy

Numerical Flow Analysis of a Multiphase Pump for Offshore and Polar Crude Oil Extraction

Brac, J, Institut Francais du Pétrole, France; Dupont, P, Sulzer Pumps Ltd, Switzerland

Experimental and Analytical Study for the Installation of Flexible Pipe in Existing Submarine Pipeline by Pipe-in-Pipe Technology

Mochizuki, T, Yamada, T, Sakamoto, T, Nipon Steel; Hayashi, T, Idemitsu Kosan Co; Ishii, K, Kagoura, T, The Furukawa Electric Co, Japan

A Theoretical Model of Straightening without an Aligner during the Reeling Installation Process

Focke, E S, Gresnigt, A M, Bijlaard, F S K, Delft Univ of Technology, The Netherlands

Extending the Strain Limits for Reeling Small Diameter Flowlines

Sriskandarajah, T, Ragupathy, P, Wilkins, R, Bedrossian, A N, KBR Pipeline Engineering Group, UK

[Find additional papers pipelines in sessions of High-Performance Materials in Offshore Industry Symposium.]

54. POLAR & ICE II: Ice Properties (V. 1)

Wednesday May 28 08:00 Ekolu

Chair: Bercha, F G, Bercha International, Canada

Co-Chair: Bekker, A T, Far Eastern State Technical Univ, Russia

Testing of a Two-Category Ice Thickness Redistribution Model

Sayed, M, National Research Council; Carrieres, T, Environment Canada; Savage, S B, McGill Univ, Canada

Sea Ice Bottom Profile on Okhotsk Sea Coast of Hokkaido

Yamamoto, Y, Kioka, S, Sakikawa, M, Honma, D, Civil Engineering Research Inst of Hokkaido, Japan

Comparison of First-Year, Second-Year and Multi-Year Sea Ice

Johnston, M E, Frederking, R, Timco, G, National Research Council, Canada

Comparing Ice Chart Parameters Against Ice Observations

Prinsenber, S, Bedford Inst of Oceanography, Canada

The Distribution of Concentrated Ice in the Bering Sea during the Winter

Yakunin, L P, Far-Eastern State Univ, Russia

55. UNDERWATER VEHICLES & SYSTEMS II (V. 2)

Wednesday May 28 08:00 Eha

Chair: Kato, N, Tokai Univ, Japan

Co-Chair: Yamaguchi, S, Kyushu Univ, Japan

ASTRA – Automated Sensor Burial Tool for Set-Up of Sub-Sea Seismic Networks

Gerber, H W, TFH Berlin; Clauss, G F, Technical Univ of Berlin, Germany

Advanced Operation of Ocean Bottom Seismometer

Baba, K, Ito, M, Tanaka, H, Nippon Marine Enterprises; Momma, H, JAMSTEC, Japan

An Integrated DVL/IMR System for Precise Navigation of an Autonomous Underwater Vehicle

Lee, C M, Lee, P M, Jeon, B H, Kim, S M, Hong, S W, KRISO/KORDI; Seong, W J, Seoul National Univ, Korea

Autonomous Motion Planning for a Manipulator Equipped on AUV in a Workspace Divided into Cubes

Ishibashi, S, Ito, M, Shimizu, E, Tokyo Univ of Mercantile Marine, Japan

WEDNESDAY 10:45

56. OFFSHORE V: FPSO/SPAR/LLFS 3 (V. 1)

Wednesday May 28 10:45 Makai

Chair: Niedzwecki, J M, Texas A&M Univ, USA

Co-Chair: Utsunomiya, T, Kyoto Univ, Japan

The Analysis of the Wave-Induced Responses of an Elastic Floating Plate with Arbitrary Horizontal Shape

Nagata, S, Niizato, H, Yoshida, H, Hitachi Zosen; Isshiki, H, Inst of Mathematical Analysis, Japan

A Rapid Solution Method for the Wave Forcing of a Circular Plate of Shallow Draft

Meylan, M H, Massey Univ, New Zealand

Dynamic Analysis of Deepwater Floating Systems: Time Domain and Nonlinear Frequency Domain Simulation Comparisons

Hartman, R, Seasoft Systems; Poranski, P F, FMC SOFEC Floating Systems, USA

Fatigue Design of Offshore Floating Structures

Mikkola, T P J, Silvola, I, Arjava, J-P, Ajosmäki, A, PI-Rauma, Finland

57. METOCEAN II: Sea States (V. 3)

Wednesday May 28 10:45 Maloko

Chair: Dawson, T H, US Naval Academy, USA

Co-Chair: Machado, U B, Chalmers Univ of Technology, Sweden

Reconstruction of Sea Events and Extreme Value Analysis

Tirozzi, B, Pittalis, S, Bruschi, A, Univ of Rome "La Sapienza"; Corsini, S, Inghilesi, R, National Technical Services, Italy

Bivariate Stochastic Simulation Based on Nonstationary Time Series Modelling

Stefanakos, C N, Athanassoulis, G A, National Technical Univ of Athens, Greece

Simulation of Sea State Parameters Process to Study the Profitability of a Maritime Line

Aillot, P, Prevosto, M, IFREMER, France; Diamanti, C, Soukissian, T, NCMR; Theodoulides, A, HRS, Greece

Downtime Analysis Techniques for Complex Offshore and Dredging Operations

Grundlehner, G J, Boskalis; de Boer, G, van der Wal, R, MARIN, The Netherlands

Pointwise Transformation of the Wave Spectrum over Variable Bathymetry Regions

Athanassoulis, G A, Belibassakis, K A, Georgiou, Y G, National Technical Univ of Athens, Greece

Physical Interpretation to Linear Parameterization of Wind-Stress Coefficients over Sea Surface

Guan, C L, Ocean Univ of Qingdao, China; Xie, L, North Carolina State Univ, USA

58. GEOTECH: Foundation 3 (V. 2)

Wednesday May 28 10:45 Mauka

Chair: Chien, L-K, National Taiwan Ocean Univ, Taiwan, China
Co-Chair: Shin, E C, Univ of Incheon, Korea;

Simulation Analysis about Reducing Effects of PC Wall-Pile Barrier

Kani, Y, Nippon Concrete Industries; Hayakawa, K, Ritsumeikan Univ, Japan

A Study on Analytic models of Retaining Walls for Unsymmetrical Excavations

Kuo, Y T, National Cheng Kung Univ, Taiwan, China

Development Process and Application of NS-Box-Type Diaphragm Wall

Tazaki, K, Nippon Steel; Matsui, T, Osaka Univ; Sakai, K, Tokyo Construction; Hirai, M, Obayashi Corp, Japan

Seismic Stability Enhancement of Rigid Nonyielding Structures

Hazarika, H, Okuzono, S, Matsuo, Y, Kyushu Sangyo Univ, Japan

A Performance-Based Quality Control System for Improved Grounds

Tamura, M, International Inst of Seismology and Earthquake; Sato, H, Kouda, M, Nihon Univ; Fujii, M, Tokai Univ; Watanabe, K, Urban Development Corp; Kawamura, M, Nihon Univ, Japan

59. COASTAL ENG V: Floating Breakwater (V. 3)

Wednesday May 28 10:45 Ekahi

Chair: Li, Y-C, Dalian Univ of Technology, China
Co-Chair: Mizutani, N, Nagoya Univ, Japan

A Study on the Layout of Floating Breakwater Units

Nakamura, T, Ehime Univ; Mizutani, N, Hur, D S, Nagoya Univ, Japan; Kim, D S, Korea Maritime Univ, Korea

Modeling of Wave Scattering by a Floating Breakwater and Application to Patuxent Bay

Lee, J L, Sungkyunkwan Univ, Korea; Maa, J P-Y, Hardaway, S, Virginia Inst of Marine Science, USA

Performance Evaluation of a Floating Pontoon with Triple Vertical Porous-Membrane Breakwater in the Oblique Seas

Kee, S T, Seoul National Univ of Technology; Kim, D S, Korea Maritime Univ; Whang, K N, Chonbuk National Univ; Han, J O, Seoul National Univ of Technology, Korea

Wave Screening Performance Using Submerged and Floating Breakwaters

Lee, J W, Cho, W C, Chung-Ang Univ; Kang, J W, Mokpo National Univ, Korea

Dual Pontoon-Membrane Floating Breakwater

Williams, A N, Univ of Houston; McDougal, W G, Univ of Florida, USA

60. GEOTECH: Geosynthetics and Soil Improvement (V. 2)

Wednesday May 28 10:45 Leahi

Chair: Nabeshima, Y, Osaka Univ, Japan

The Estimation of Discharge Capacity for Vertical Drain Using Composite Discharge Capacity Apparatus

Kim, S S, Han, S J, Kim, B I, Hanyang Univ, Korea

Reinforcing of Liquefiable Ground Using Anchored Plastic Board Drain

Mizoguchi, Y, Asanuma Corp; Hara, H, Tanaka, Y, Kobe Univ, Japan

Stability Analysis of Geosynthetic Reinforced Embankment on Soft Soils Considering Strain of Reinforced Material

Lee, K Y, Hwang, J H, Hong, J W, An, Y S, DongSeo Univ, Korea

Stability Analysis and Field Monitoring of Geotextile Tube in East Coast in Korea

Shin, E C, Oh, Y I, Kim, J I, Univ of Incheon; Shin, M S, Kunsan National Univ, Korea

The Technique for Early Stabilization in Dredged and Reclaimed Soil

Kim, S S, Hanyang Univ; Shim, S H, Samsung Co; Jung, S Y, Kim, S Y, Expert Group for Earth and Environment, Korea

An Application of Vacuum to Improve Soft Ground

Hong, W P, Song, Y S, Chung-Ang Univ; Lee, S J, Doosan Construction and Engineering, Korea

Nonlinear Modeling of Bridge Abutments Made of MSEW Walls Reinforced with Geogrid

Fakharian, K, Mojtahedi, M A, Amirkabir Univ of Technology, Iran

61. MATERIALS/WELDING/FATIGUE III (V. 4)

Wednesday May 28 10:45 Ewa Ballroom

Chair: Tomita, Y, Osaka Univ, Japan

Co-Chair: Gruenitz, L, Technical Univ of Hamburg-Harburg, Germany

Finite Element Method for Hot Cracking on Transverse Cross Section Using Temperature Dependent Interface Element

Shibahara, M, Kanazawa Inst of Technology; Serizawa, H, Murakawa, H, Osaka Univ; Ueda, Y, Kinki Univ, Japan

Fatigue Analysis of Drillstring Threaded Connections

Han, S K, Daewoo Shipbuilding & Marine Engineering, Korea; Knight, M, Brennan, F P, Dover, W D, University College London, UK

Evaluation of Tensile Strength and Fatigue Strength of SUS304 Stainless Steel Friction Welded Joints

Ochi, H, Osaka Inst of Technology; Yamamoto, Y, Setsunan Univ; Ogawa, K, Osaka Prefecture Univ; Tsujino, R, Osaka Inst of Technology; Sawai, T, Osaka Sangyo Univ; Suga, Y, Keio Univ, Japan

A New Approach to Fatigue Strength Evaluation of Ship Hull (Second Report)

Wang, Y H, Tomita, Y, Hashimoto, K, Osawa, N, Terai, K, Osaka Univ, Japan

Three-dimensional Numerical Investigation on Thickness-Through and Surface Fatigue Crack Closure

Miyashita, T, Tomita, Y, Hashimoto, K, Osawa, N, Osaka Univ, Japan

62. COLLISION, IMPACT & SLAMMING I (V. 4)

Wednesday May 28 10:45 Elima

Chair: Ueda, Y, Kinki Univ, Japan

Co-Chair: Kwon, S H, Pusan National Univ, Korea

Contact-Impact Dynamic Response of Vessel Plates and Shells

Swaddiwudhipong, S, Koh, C G, National Univ of Singapore; Liu, Z S, Inst of High Performance Computing, Singapore

Simulations of Ship-Structure Collisions

Derradji, A, Earle, G J, Institute for Marine Dynamics, NRC, Canada

Transient Dynamic Effects of Jacket-Vessel Collision on the Platform Topside

Zheng, P, Kanegaonkar, H, Gjerstad, V-A, Aker Offshore Partner, Norway

Collapse Mechanism of the Buffer Bow Structure on Axial Crushing

Yamada, Y, Endo, H, Kawano, H, Hirakata, M, National Maritime Research Inst, Japan

63. POLAR & ICE III: Ice Forces (V. 1)

Wednesday May 28 10:45 Ekolu

Chair: Saeki, H, Hokkaido Univ, Sapporo, Japan

Co-Chair: Prinsenberg, S, Bedford Inst of Oceanography, Canada

Theoretical and Experimental Studies of Specific Energy of Mechanical Failure of Sea Ice

Tsuprik, V G, Far-Eastern State Tech Univ, Russia

Fracture Analysis of Ice under High Strain Rate Loading

Dutta, P K, US Army Cold Regions R&E Laboratory; Schulson, E M, Dartmouth College; Cole, D, Sodhi, D, US Army Cold Regions R&E Laboratory, USA

Abrasion Effect of Ice Cover On Supports of Hydraulic Engineering Structures in Conditions of Sakhalin Island Shelf

Bekker, A T, Uvarova, T E, Kim, S D, Far Eastern State Technical Univ, Russia

On-Line Dynamic Response Tests on Offshore Structure Based on Sand Seabed Subjected to Ice and Seismic Loads

Hyodo, M, Yamaguchi Univ; Nagayama, H, NKK; Yoshimoto, N, Kawamoto, Y, Yamaguchi Univ, Japan

A Simplified 3-Dimensional Ice Ridge Scour Model

Choi, K S, Korea Maritime Univ, Korea

Determination of Local Ice Pressures from Ship Transits in Ice

Frederking, R, National Research Council, Canada

Experimental Study on Adfreeze Bond Strength Between Sea Ice and Various Materials Used in Offshore Structures

Saeki, H, Hokkaido Univ, Takeuchi, T, Hachinohe Inst of Technology; Usami, N, Takahashi, K, Cold Region Port and Harbor Engineering Research Center, Japan

64. RESOURCES & ENERGY I (V. 1)

Wednesday

May 28

10:45

Eha

Chair: Sarmiento, A J N A, Lisbon Technical Univ, Portugal

Co-Chair: Thakker, A, Univ of Limerick, Ireland ;

Technical and Economic Aspects of Offshore Wind Energy Development in Japan

Kogaki, T, Matsumiya, H, National Inst of AIST, Japan

Use of Synthetic Aperture Radar Wind Measurements for the Design, Construction and Operation of Offshore Wind Farms

Lehner, S, Schneiderhan, T, Schulz-Stellenfleth, J, German Aerospace Center ; Horstmann, J, GKSS Research Center, Germany

Design and Experiment of Current Power Rotors

Jo, C H, Kim, K S, Min, K H, Inha Univ ; Kim, Y K, Daewoo E&C, Korea

Development of Two-Way Diffuser for Tidal Energy Conversion System

Shiomi, N, Setoguchi, T, Kaneko, K, Saga Univ ; Ohya, Y, Kyushu Univ, Japan

Relationship between Engineering Properties and Assay of Seafloor Massive Sulfides

Yamazaki, T, Inst for Marine Resources and Environment, AIST, Japan

WEDNESDAY 13:20

Plenary Presentation IV (V.3)

Wednesday May 28 13:20 Maloko

Specification of Metocean Design Conditions: Recent Progress and Remaining Gaps

Olagnon, M, IFREMER; Quiniou-Ramus, V, TotalFinaElf, France

Introduction by Prevosto, M, France

65. OFFSHORE VI: FPSO/SPAR/VLFS 4 (V. 1)

Wednesday May 28 14:00 Makai

Chair: Ikeda, Y, Osaka Prefecture Univ, Japan

Co-Chair: Ferreira, M D, Petrobras; Brazil

DP FPSO: A Fully Dynamically Positioned FPSO for Ultra Deep Waters

Lopez-Cortijo, J, IZAR FENE, Spain; Duggal, A S, FMC SOFEC Floating Systems, USA; van Dijk, R R T, MARIN, The Netherlands; Matos, S F D, Det Norske Veritas (USA), USA

Model Experiments on Dynamic Positioning System Using Neural Network Controller

Nakamura, M, Shima, T, Kyushu Univ, Japan

Hydrodynamic Aspects between LNG-FPSO and Side-by-Side Moored LNG Carrier

Kim, M S, Ha, M K, Kim, B W, Hong, S K, Choi, Y H, Lee, D Y, Samsung Heavy Industries, Korea

Coupled Hydrodynamic Analysis of a VLCC and an Offload Vessel

Ferreira, M D, Petrobras; Martins, M R, Nishimoto, K, Univ of Sao Paulo, Brazil

Simplified Model of the Nonlinear Oscillations of Two Ships in Tandem

Souza Junior, J R, Morishita, H M, Fernandes, C G, Univ of Sao Paulo, Brazil

Development of Double Barge Connection System for Loadout, Towing and Floatoff Operation

Yang, Y T, Yoon, K Y, Park, B N, Hyundai Heavy Industries, Korea

66. METOCEAN III: Waves (V. 3)

Wednesday May 28 14:00 Maloko

Chair: Prevosto, M, IFREMER, France

Modelling Non-Linear Waves Using a Transformed Gaussian Process with Extrapolation of the Level Crossings

Machado, U B, Chalmers Univ of Technology, Sweden

Distribution of Wave Crests in Nonlinear Random Sea – Applications of Saddlepoint Methods

Machado, U B, Chalmers Univ of Technology, Sweden; Butler, R, Colorado State Univ, USA

Effect of High-Frequency Waves on Statistics of Random Seas

Dawson, T H, Wallendorf, L A, US Naval Academy, USA

Effects of Currents on Analysis of Directional Waves

Zhang, S S, Zhang, J, Texas A&M Univ, USA

On Directional Effects of the Second Order Wave Model

Birknes, J, Univ of Oslo; Bitner-Gregersen, E, Det Norske Veritas, Norway

Extreme Value Analysis of Non-linear Numerical Simulations of Narrow Band Random Surface Gravity Waves

Socquet-Juglard, H, Dysthe, K B, Univ of Bergen; Trulsen, K, Univ of Oslo; Liu, J D, Krogstad, H E, NTNU, Norway

Numerical Study on the Non-Linear Behaviour of Steep Isolated Unidirectional Waves

Contento, G, D'Este, F, Codiglia, R, Univ of Trieste, Italy

67. GEOTECH: Soil Dynamics I (V. 2)

Wednesday

May 28

14:00

Mauka

Chair: Das, B M, California State Univ Sacramento, USA

Co-Chair: Chen, Y R, Chang Jung Christian Univ, Taiwan, China

Role of Plastic and Non-Plastic Fines on Cyclic Shear Behavior of Saturated Sand

Nabeshima, Y, Matsui, T, Osaka Univ, Japan

Analysis of Mechanism or Wave-Induced Seabed Liquefaction

Chien, L K, Chang, C H, Hsiao, C H, Chang, S C, Chang, Y H, National Taiwan Ocean Univ, Taiwan, China

Performance of Retrofitted Pile Foundations Subjected to Seismically Induced Lateral Spreading

Abdoun, T H, Rensselaer Polytechnic Inst; Wang, Y, Mueser Rutledge Consulting Engineers, USA

Analysis of the Dynamic Deformation Mechanisms of Soil-Pile Systems

Zeghal, M, Abdoun, T, Rensselaer Polytechnic Inst, USA

Finite Element Simulation of the Wave-Induced Liquefaction of Seabed Foundation of Breakwater

Miura, K, Toyohashi Univ of Technology; Otsuka, N, North Japan Port Consultants; Yoshida, N, Oyo Corp, Japan; Nguyen, A M, Hanoi Architectural Univ, Vietnam

Dynamic Analysis of One-Dimensional Consolidation Problems by Finite-Deformation FEM

Shimizu, M, Tottori Univ; Kigoshi, K, Japan Highway Corp, Japan

Dynamic Characteristics of Soft Settle Type of Offshore Structures Subjected to Sea Waves and Ground Motions

Fukusumi, T, Uchida, N, Takahashi, D, Kobe Univ, Japan

On Line Pseudo-Dynamic Response Test on Stratified Ground Including Clay Layer

Takahashi, N, Sumitomo Construction; Hyodo, M, Yamaguchi Univ; Yamamoto, Y, Mitsui Construction; Kawamoto, Y, Kimura, S, Yamaguchi Univ, Japan

68. COASTAL ENG VI: Current/Long Period Motion (V. 3)

Wednesday May 28 14:00 Ekahi

Chair: Teng, M, Univ of Hawaii, USA

Co-Chair: Kakuno, S, Osaka City Univ, Japan

Application of Bore Model to Nonlinear Wave Transformation

Hara, N, Hirayama, K, Hiraishi, T, Port and Airport Research Inst, Japan

Analysis of Storm Surges in Adriatic Sea Using Hilbert Huang Transform

Briganti, R, Universita di Roma Tre; Beltrami, G, Universita dell'Aquila, Italy

Tidal Simulation in the East China Sea with Finite Element Method

Li, L, Zuo, C H, Li, P L, Ocean Univ of Qingdao, China

Numerical Performance of a Nesting Procedure for Coastal Current Simulation

Sato, K, Nihei, Y, Nishimura, T, Tokyo Univ of Science, Japan

Shallow Water Flow: Numerical Simulations vs. Experiments

Lalli, F, APAT; Miozzi, M, Romano, G P, Univ degli Studi di Roma "La Sapienza"; Armenio, V, Univ degli Studi di Trieste, Italy

Numerical Simulations of Wind Wave Induced Oscillations in Harbours of Arbitrary Shape

Calza, M, D'Este, F, Contento, G, Univ of Trieste, Italy

Some Considerations on Three-dimensional Numerical Analysis of Harbor Oscillations at Arbitrary Topography

Kubo, M, Kobe Univ of Mercantile Marine; Sakakibara, S, The Yokohama Rubber Co; Ohtake, Y, M O Marine Consulting, Japan

69. GEOTECH XI: Pile Foundation (V. 2)

Wednesday May 28 14:00 Leahi

Chair: Bang, S C, South Dakota School of Mines and Technology, USA

Comparative Behavior of Laterally Loaded Groups of Bored and Driven Piles in a Cohesionless Soil Deposit

O'Neill, M W, Univ of Houston, USA; Huang, A B, National Chao-Tung Univ, Taiwan, China

Fatigue Design of Driven Piles for Deepwater Applications

Buitrago, J, Wong, P C, ExxonMobil Upstream Research, USA

Pullout Capacity of Suction Emplaced Piles under Maintaining Suction
Allersma, H G B, Jacobse, J A, Delft Univ of Technology; Krabbendam, R L, Kahn Shipping, The Netherlands

Estimation of Skin Friction on SDA (Separated Doughnut Auger) Pile
Hong, W P, Chai, S G, Chung-Ang Univ, Korea

Effect of Construction Procedure on the Performance of Compaction Grout Piles
El-Kelesh, A M, Matsui, T, Osaka Univ, Japan

Estimating the Ultimate Tip Load of a Bored Pile and Applicability of an Empirical Formula
Horiuchi, T, Meijo Univ; Kani, Y, Nippon Concrete Industries, Japan

Effect of Using a Driving Shoe on the Behavior of a Model Steel Pipe Pile Pushed in Dry Dense Sand
Alansari, O M, Univ of Qatar, Qatar

Design Charts of Piled Raft Foundations on Soft Clay
Seo, Y K, Korea Maritime Univ; Jung, S G, Dong-A Univ, Korea

Model Shaking Table Test on the Damage to Pile Foundation in Earthquake-Induced Lateral Flow of Ground with Non-Liquefied Surface Layer
Adachi, Y, Hazama Corp; Miura, K, Toyohashi Univ of Technology; Mihara, M, Urano, K, Hazama Corp, Japan

70. RELIABILITY, RISK & SAFETY I (V. 4)

Wednesday May 28 14.00 Ewa Ballroom

Chair: Langen, I, Stavanger University College, Norway
Co-Chair: Karadeniz, H, Delft Univ of Technology, The Netherlands

Temperature Dependent FPSO Ultimate Strength Reliability
Moatsos, I, Das, P K, Univ of Glasgow and Strathclyde, UK

A Comparative Reliability Analysis between Two Design Options for the Number of Tendons in a Tension Leg Platform (TLP)
Lima, E C P, Ellwanger, G B, Sagrilo, L V S, COPPE/UFRJ; Alves, L H M, Petrobras; Siqueira, M Q, COPPE/UFRJ; Goulart, R O, Petrobras, Brazil

Updating of Structural Failure Probability Based on Experienced Wave Loading
Ersdal, G, Stavanger University College, Norway; Sørensen, J D, Aalborg Univ, Denmark; Langen, I, Stavanger University College, Norway

The Application of a New Algorithm of System Reliability in Structural Analysis of Ocean Platforms
Kang, H G, Zhang, X Q, Dalian Univ of Technology; Wang, F M, Zhengzhou Univ, China

Seismic Response Evaluations of an Offshore Structure with Uncertainties
Kawano, K, Fukusako, H, Kagoshima Univ; Iida, T, Osaka Sangyo Univ, Japan

71. COLLISION, IMPACT & SLAMMING II (V. 4)

Wednesday May 28 14:00 Elima

Chair: Stansberg, C T, MARINTEK, Norway
Co-Chair: Yamada, Y, National Maritime Research Inst, Japan

Prediction and Modeling of Green Sea and Wave Slam Events

Hellan, O, Hermundstad, O A, Hoff, J R, Stansberg, C T, MARINTEK;
Hansen, E W M, Complex Flow Design, Norway

An Alternative Experiment for Slamming Using an Air Pressure Cylinder

Kwon, S H, Chung, D J, Park, J S, Pack, S W, Jung, J Y, Pusan National Univ, Korea

The Impact of URS21 on Hatch Cover Design and Safety

Zheng, Y, Vassalos, D, Ergas, I, Guarin, L, Univ of Strathclyde, UK

Whipping Analysis of Ship Hulls Considering Slamming Impact Loads

Park, S W, Lee, J K, Korea Inst of Machinery & Materials; Oh, S H, Song, M J, Kwon, S M, Daewoo Shipbuilding & Marine Engineering, Korea

Coincidence Phenomena in the Hydro-Elastic Response of Structures to Slamming Impact

Ciappi, E, INSEAN; Carcaterra, A, Univ of Rome "La Sapienza", Italy

72. POLAR & ICE IV: Design & Navigation (V. 1)

Wednesday May 27 14:00 Ekolu

Chair: Frederking, R, National Research Council, Canada
Co-Chair: Prinsenber, S, Bedford Inst of Oceanography, Canada

"Arctic Structure Design Guideline" Prepared by JOIA

Kato, K, Kinki Univ; Kurokawa, A, Japan Ocean Industries Association, Japan

Full-Scale Ice-Navigation Simulator

Kjerstad, N, Bjoerneseth, O, Aalesund University College, Norway

Ultimate Plastic State Design of Structures of the USCG Icebreaker for Great Lakes

Belenkiy, L, Raskin, Y, Tunik, A, USCG, USA

Observation and Countermeasure against Freezing of Seawater in the Otsu Fishing Port

Kodama, S, Honma, K, Hokkaido Regional Development Bureau;
Terashima, T, Kumashiro System Frontier; Kudo, S, Okino, K, Cold Region Port and Harbor Engineering Research Center, Japan

Arctic Subsea Pipeline Oil Spill Probabilistic Analysis

Bercha, F G, Cerovsek, M, Bercha International, Canada; Prentki, R T, US Minerals Management Service, USA

73. RESOURCES & ENERGY II (V. 1)

Wednesday May 28 14:00 Eha

Chair: Matsumiya, H, AIST, Tsukuba, Japan
Co-Chair: Finnigan, T, Energetech Australia, Australia

Observation of CO₂ Hydrate Formation in High Pressured Water
Nakajima, Y, Shiota, H, Namie, S, National Maritime Research Inst, Japan

Extraction of Gas Hydrate Using CO₂ Sequestration
Komai, T, Kawamura, T, Yoon, J H, AIST, Japan

The Hydrocratic Generator: A Membrane-less Technology for Capturing the Free Energy of Mixing Involving Salinity Gradients
Jones, A T, OceanUS Consulting ; Pscheidt, E, Finley, W, Wader LLC, USA

Diffraction of Linear Water Waves on a Parabolic Wall: Small Parameter Approach
Basmat, O, Denniss, T, Finnigan, T, Energetech Australia, Australia

Parametric Analysis of a Piece-Wise Linear Parabolic Reflecting Wall for Ocean Wave Power Converters
Finnigan, T, Energetech Australia; Carley, J, Water Research Laboratory, Australia

Numerical Methods to Predict Characteristics of Oscillating Water Column for Terminator Type of Wave Energy Converter
Suzuki, M, Arakawa, C, Univ of Tokyo, Japan

Real-Time Control of an OWC with a Variable Pitch-Angle Turbine
Vakalis, S, EC-Joint Research Center, ISIS, Italy ; Sarmiento, A, Instituto Superior Tecnico, Portugal

WEDNESDAY 19:00

Annual Conference Banquet

19:00

Regency Ballroom

THURSDAY 08:00

74. OFFSHORE VII: FPSO/SPAR/VLFS 5 (V. 1)

Thursday May 29 08:00 Makai

Chair: Sphaier, S H, COPPE/UFRJ, Brazil
Co-Chair: Li, R P, Shanghai Jiao Tong Univ, China

Bilge Keel Effectiveness for FPSOs with Varying Loading Conditions
Ferreira, M D, Ferrari, J A, Petrobras, Brazil

Computational Modeling of FPSO Hull Roll Motions
Kakar, K, Kinnas, S A, Univ of Texas at Austin, USA

Numerical Simulation of FSO Structure for On-Ground Fabrication and Load-Out
Yang, Y T, Hyundai Heavy Industries, Korea

Hull Strength Design and Assessment for FPSOs Using Dynamic Loading Factors
Zhao, C T, Wang, Y F, American Bureau of Shipping, USA

Motion Analysis on a Large FPSO in Shallow Water
Li, X, Yang, J M, Xiao, L F, Shanghai Jiao Tong Univ, China

75. METOCEAN IV: Climatology (V. 3)

Thursday May 29 08:00 Maloko

Chair: Contento, G, Univ of Trieste, Italy

Optimization of the Assimilation Scheme of Directional Wave Spectra in Wave Model WAM: Application to Real Wave Spectra ASAR-ENVISAT
Aouf, L, Lefevre, J-M, Météo-France; Hauser, D, Univ Versailles, France

Nearshore Waves, a Real Time Forecast System
Hulse, D, Met Office; Tozer, N, HR Wallingford, UK

A Hamiltonian Model of the Trajectory of the Center of Typhoons
Tirozzi, B, Univ of Rome "La Sapienza", Italy; Dobrokhotov, S, Inst of Problems of Mechanics, Russia

Performance of Several Ocean Wave Forecasting Systems for High Swell Conditions
Lefèvre, J-M, Météo-France, France; Kortcheva, A, National Inst of Meteorology and Hydrology, Bulgaria; Stefanescu, S, National Inst of Meteorology and Hydrology, Romania

Forecasts of Precipitations
Tirozzi, B, Puca, S, Morucci, S, Univ of Rome "La Sapienza"; Lavagnini, A, Inst of Physics of the Atmosphere, CNR, Italy

A Study on the Homogeneity of the Wave Climate along the Northern Taiwan Coast

Lee, B C, Huaafan Univ; Fan, Y M, National Cheng Kung Univ, Taiwan, China

Long-Term Quality Status of Wave Height and Wind Speed Measurements from Satellite Altimeters

Queffeulou, P, IFREMER, France

WORLDAVES: Fusion of Data from Many Sources in a User-Friendly Software Package for Timely Calculation of Wave Statistics in Global Coastal Waters

Barstow, S,; Mørk, G, Lønseth, L, Schjølberg, P, OCEANOR, Norway; Athanassoulis, G, Belibassakis, K, Gerostathis, T, National Technical Univ of Athens, Greece; Spaan, G, Van Oord ACZ, The Netherlands

76. GEOTECH: Soil Dynamics 2 (V. 2)

Thursday May 29 08:00 Mauka

Chair: Tanaka, Y, Kobe Univ, Japan

Co-Chair: Lo, K Y, Univ of Western Ontario, Canada

Seismic Rehabilitation of Coastal Dikes by Sheet-Pile Enclosures

Adalier, K, Pamuk, A, Zimmie, T F, Rensselaer Polytechnic Inst, USA

A Practical Method in Evaluating Liquefaction Potential of Soils

Chen, Y R, Hsieh, S C, Shan-Kung, P L, Chang Jung Christian Univ, Taiwan, China

Liquefaction Resistance of In-situ Frozen Samples of Silty Soils

Chen, Y C, You, P S, Chen, B T, National Taiwan Univ of Science and Technology, Taiwan, China

Modeling of Seismically Induced Liquefaction under High Confining Stress

Abdoun, T H, Gonzalez, L, Rensselaer Polytechnic Inst; Sharp, M K, US Army Corps of Engineers, USA

Evaluation of Liquefaction Characteristics of Decomposed Granite Soils

Nakayama, Y, Kansai Soil Research Center; Nishida, K, Nisigata, T, Kansai Univ; Inoue, K, Kansai Soil Research Center, Japan

Ground Vibration Due to Dynamic Compaction

Hwang, J H, National Central Univ, Taiwan, China

77. COASTAL ENG VII: Waves Over Submerged Breakwater (V. 3)

Thursday May 29 08:00 Ekahi

Chair: Hiraishi, T, Port and Airport Research Inst, Japan

3D Hydrodynamic Tests with Low-Crested Structures: Analysis of Velocity Fields

Zanutigh, B, Lamberti, A, Tirindelli, M, Univ of Bologna, Italy

2D Wave Set Up Behind Low Crested Breakwaters

Calabrese, M, Vicinanza, D, Buccino, M, Univ degli Studi di Napoli "Federico II", Italy

Second-Order Analysis of Waves Propagating over Submerged Structures

Lee, J F, Twu, L F, National Cheng Kung Univ, Taiwan, China

Using Boussinesq Equation to Simulate Bragg Scattering of Water Waves

Hsu, T W, Yang, B D, Chou, S E, National Cheng Kung Univ, Taiwan, China

Perforated Breakwaters, Dieppe Harbour Jarlan Caisson: General Schedule and Acquired Experience

Bélorgey, M, Caen Univ, France

78. HYDRO LWT-I: Long Waves & Tsunamis I (V. 3)

Thursday May 29 8.00 Leahy

Chair: Grilli, S, Univ of Rhode Island, USA
Co-Chair: Kirby, J, Univ of Delaware, USA

Wave Interaction with a Sea Dike Using a VOF Finite-Volume Method

Troch, P, Li, T Q, De Rouck, J, Ghent Univ, Belgium; Ingram, D, Manchester Metropolitan Univ, UK

Numerical Simulations of Three-dimensional Wave Breaking by Coupling of a VOF Method and a Boundary Element Method

Biausser, B, Univ de Toulon et du Var, France; Grilli, S T, Univ of Rhode Island, USA; Fraunié, P, Univ de Toulon et du Var, France

Numerical Analysis of the Internal Kinematics and Dynamics of Three-Dimensional Breaking Waves on Slopes

Biausser, B, Univ de Toulon et du Var, France; Grilli, S T, Univ of Rhode Island, USA; Fraunié, P, Univ de Toulon et du Var, France

Computations of 3D Overtaking Waves in Shallow Water

Guyenne, P, McMaster Univ, Canada; Grilli, S T, Univ of Rhode Island, USA

Numerical Simulations of Wave Breaking by Coupling of a VOF Method and a Boundary Integral Element Method

Fraunié, P, Univ de Toulon; Biausser, B, PRINCIPIA R&D; Lachaume, C, Univ de Toulon; Marcer, R, PRINCIPIA R&D; France; Grilli, S T, Univ of Rhode Island, USA

Topographical Scattering of Waves: A Spectral Approach

Magne, R, Arduin, F, Service Hydrographique et Océanographique de la Marine; Rey, V, Univ Toulon, France; Herbers, T H C, Naval Postgraduate School, USA

79. RELIABILITY, RISK & SAFETY II (V. 4)

Thursday May 29 08:00 Ewa Ballroom

Chair: Louca, L A, Imperial College, London, UK
Co-Chair: Kawano, K, Kagoshima Univ, Japan

Calculation of Response Spectra of Structures with Deteriorating Members

Karadeniz, H, Delft Univ of Technology, The Netherlands

Reliability Based Design of Breakwater Armor Layers Using Neural Network

Kim, D H, Park, W S, Korea Ocean Research & Development Inst, Korea

Reliability Design of the Crest Elevation of Rubble Mound Breakwater

Kweon, H M, Kyongju Univ; Hong, N S, Dong-A Univ, Korea

Development of Canadian Performance-Based EER Standards

Bercha, F G, Abel, W, Bercha International; Radloff, E, Transport Canada, Canada

Human Performance in Arctic Offshore EER

Bercha, F G, Bercha International; Brooks, C J, Survival Systems Limited, Canada

[\[Find additional papers on Reliability in sessions of Pipelines and Risers.\]](#)

80. COLLISION, IMPACT & SLAMMING III (V. 4)

Thursday May 29 08:00 Elima

Chair: Vassalos, D, Univ of Strathelyde, UK

Co-Chair: Derradji, A, Inst for Marine Dynamics, NRC, Canada

An Efficient Numerical Method for the Solution of Two-Dimensional Hydrodynamic Impact Problems

Kim, B K, Shin, Y S, American Bureau of Shipping, USA

Wave-in-Deck Forces on Jetties and Related Structures

Tirindelli, M, Univ of Bologna; Cuomo, G, Univ of Rome III, Italy; Allsop, N W H, HR Wallingford, UK; Lamberti, A, Univ of Bologna, Italy

A Theoretical Study of Underwater Explosion Damage of Marine Structures

Zong, Z, Hung, K C, Inst of High Performance Computing, Singapore

Force-Based Failure Modeling for Corrugated Panel Subjected to Dynamic Blast Loading

Boh, J W, National Univ of Singapore, Singapore; Louca, L A, Imperial College, UK; Choo, Y S, National Univ of Singapore, Singapore

81. POLAR & ICE V: Ice Motion & Waves (V. 1)

Thursday May 29 08:00 Ekolu

Chair: Kato, K, Kinki Univ, Japan

Sea-Ice Motion in the Southern Part of Okhotsk Sea Derived by Microwave Sensors

Enomoto, H, Kumano, T, Kitami Inst of Technology; Kimura, N, NASDA/EORC; Tateyama, K, Shirasawa, K, Hokkaido Univ; Uratsuka, S, Communication Research Laboratory, Japan

Study of an Ice-Ocean Coupled Model for the Regional Sea

Su, J, Ocean Univ of Qingdao; Wu, H D, Zhang, Y F, Liu, Q Z, National Marine Environmental Forecast Center, China

Higher Order Method for the Wave Forcing of a Floating Thin Plate of Arbitrary Geometry

Wang, C D, Meylan, M H, Massey Univ, New Zealand

Ocean Wave Propagation along Cracks in Floating Ice Sheets

Evans, D V, Porter, R, Univ of Bristol, UK

Learning and Generalization of Experimental Values on Ice Scour Event by a Neural-Network Method

Kioka, S, Civil Engineering Research Inst of Hokkaido; Saeki, H, Hokkaido Univ, Japan

82. RESOURCES & ENERGY III (V. 1)

Thursday May 29 08:00 Eha

Chair: Setoguchi, T, Saga Univ, Japan

Co-Chair: Yamazaki, T, Inst for Marine Resources & Environ, AIST, Japan

Benefit of Latching Control for a Heaving Wave Energy Device in Random Sea

Babarit, A, Duclos, G, Clément, A H, Ecole Centrale de Nantes, France

Experimental Study of Impulse Turbine for Wave Energy Conversion under Irregular Air Flow

Thakker, A, Usmani, Z, Dhanasekaran, T S, Univ of Limerick, Ireland ; Takao, M, Matsue National College of Technology ; Setoguchi, T, Saga Univ, Japan

Software Design Methodology of Impulse Turbine for Wave Energy Conversion

Thakker, A, Gollapalli, K, Univ of Limerick, Ireland ; Takao, M, Matsue National College of Technology ; Setoguchi, T, Saga Univ, Japan

Basic Experimental Study of New Ocean Wave Energy Caisson

Neumann, F, Sarmento, A J N A, Instituto Superior Tecnico, Portugal

THURSDAY 10:45

83. OFFSHORE VIII: FPSO/SPAR/VLFS 6 (V. 1)

Thursday May 29 10:45 Makai

Chair: Natvig, B J, Marine Technology Consulting AS, Norway

Time Domain and Frequency Domain Analysis of SPAR Platforms

Anam, I, Univ of Asia Pacific, Bangladesh; Roesset, J M, Niedzwecki, J M, Texas A&M Univ, USA

Reduction of Inclination and Vortex-Induced Oscillation of a Spar Buoy in Rapid Current

Ikeda, Y, Enomoto, T, Katayama, T, Osaka Prefecture Univ, Japan

Global Performance and Mooring Analysis of a Truss Spar

Liu, T, Chen, X, Wu, J-F, Huang, K, American Bureau of Shipping, USA

Truss SPAR Strength and Fatigue Analysis for Wet Tow
Wang, J J, Lu, R, Lu, N, Technip Offshore Engineering, USA

Time Domain Strength and Fatigue Analysis of Truss SPAR Heave Plate
Lu, R, Wang, J J, Erdal, E, Technip Offshore Engineering, USA

SPAR Topsides-to-Hull Connection Fatigue – Time Domain vs. Frequency Domain
Luo, M, Wang, J J, Lu, R, Technip Offshore Engineering, USA

A Study on Nonlinear Coupled Motions of a Moored SPAR Platform
Rho, J B, Choi, H S, Seoul National Univ, Korea

84. GEOTECH: Soil Dynamics 3 (V. 2)
Thursday May 29 10:45 Mauka

Chair: Kumar, S, Southern Illinois Univ, USA
Co-Chair: Singh, J P, J P Singh & Associates; USA

Vertical Composite Drains for Mitigating Liquefaction Hazard
Rollins, K M, Anderson, J, Brigham Young Univ; Goughnour, R, Nilex Inc, USA

Static and Dynamic Lateral Load Behavior of Pile Groups Based on Full-Scale Testing
Rollins, K M, Brigham Young Univ; Peterson, K T, Utah Dept of Transportation; Weaver, T J, Univ of California at San Diego; Johnson, S R, Brigham Young Univ, USA

Performance Based Design of Waterfront Structures
Singh, J P, J P Singh & Associates; Tabatabaie, M, URS Corp; French, J, Mactec Co, USA

Strain Wedge Model for Prediction of Lateral Response of Large Diameter Shafts and Piles in Liquefied and As-Is Conditions
Ashour, M, Norris, G, Univ of Nevada at Reno; Singh, J P, J P Singh & Associates, USA

Role of Soil Dynamics in the Offshore Environment
Puri, V K, Kumar, S, Southern Illinois Univ, USA

A Study of Liquefaction Potential for a Liquefied Area
Ku, C S, I-Shou Univ; Lee, D H, Chen, C S, Tsai, P H, National Cheng Kung Univ, Taiwan, China

Evaluating the Influence of Particle Shape on Liquefaction Behavior Using Discrete Element Modeling
Ashmawy, A K, Univ of South Florida; Sukumaran, B, Rowan Univ; Hoang, V, Univ of South Florida, USA

85. COASTAL ENG VIII: Sediment/Coastal Disaster (V. 3)
Thursday May 29 10:45 Ekahi

Chair: Otsuka, K, Osaka Prefecture Univ, Japan
Co-Chair: Deguchi, I, Osaka Univ, Japan

Experimental Study of Scouring Process and Flow Behavior Around a Spur Dike During a Surge Pass

Mioduszewski, T M, Maeno, S, Koyama Univ, Japan

An Experimental Study on the Beach Profile Change and Grading Process of Beach Material

Mizutani, N, Ma, H H, Eguchi, S, Nagoya Univ, Japan

Two-Dimensional Analytical Solution for Tidal Fluctuations Sandy Beach

Teo, H T, Jeng, D S, Griffith Univ, Australia; Barry, D A, Univ of Edinburgh, UK; Li, L, Univ of Queensland, Australia

Experimental Study of Sediment Transport in an Oscillatory Flow

Kan, S, Katsuragi, T, Baba, N, Kishi, M, Kitaura, K, Osaka Prefecture Univ, Japan

New Design Criteria of Coastal Engineering for Disaster Prevention

Dong, S, Ocean Univ of Qingdao, China; Wei, Y, Univ of Hawaii, USA; Liu, D F, Ocean Univ of Qingdao, China

Study on Tsunami Disaster Prevention along Hyuganada Coastline

Murakami, K, Miyazaki Univ; Irie, I, Kyushu Univ, Japan

86. HYDRO LWT-II: Long Waves & Tsunamis 2 (V. 3)

Thursday May 29 10:50 Leahi

Chair: Fraunié, P, Univ de Toulon et du Var, France

Co-Chair: Rey, V, Univ de Toulon et du Var, France

Tsunami Inundation Risk Analysis for Hawaii [Oral Presentation Only]

Gica, E, Teng, M, Univ of Hawaii, USA

Tsunami Generation by Deformable Underwater Landslides

Watts, P, Applied Fluids Engineering; Grilli, S T, Univ of Rhode Island, USA

Submarine Avalanches: Model Development and Testing

Walters, R A, National Inst for Water and Atmospheric Research, New Zealand

Laboratory Experiments for Tsunamis Generated by Underwater Landslides: Comparison with Numerical Modeling

Enet, F, Grilli, S T, Univ of Rhode Island; Watts, P, Applied Fluids Engineering, USA

Effect of Tsunami Wave Profile on Responses of a Floating Structure Installed to Shallow Sea

Masuda, K, Ikoma, T, Kobayashi, A, Uchida, M, Nihon Univ, Japan

87. TUBULAR STRUCTURES (V. 4)

Thursday May 29 10:45 Ewa Ballroom

Chair: Choo, Y S, National Univ of Singapore, Singapore

Co-Chair: WAM Wan Mahmood, Mara Univ of Technology, Malaysia

The Fatigue Strength of Tubular Joints with Modified Profiling Technology

Romeijn, A, Wardenier, J, TU-Delft ; Glijnis, P C, HGG Profiling Equipment BV ; Dijkstra, O D, TNO Building and Construction Research, The Netherlands

The Fatigue Behaviour of Bird Beak Joints

Romeijn, A, Wardenier, J, TU-Delft; Glijnis, P C, HGG Profiling Equipment BV, The Netherlands

Brittle Fracture in Beam-to-Column Welded Joints : Assessment Based on FAD Approach

Dale, K W, Kurobane, Y, Azuma, K, Sojo Univ ; Iwashita, T, Ariake National College of Technology, Japan

On the Fatigue Behaviour of Welded Cast Steel – Steel Connections

Herion, S, Univ of Karlsruhe ; Bucak, O, Munich Univ of Applied Sciences ; Koch, E, Deutsche Bahn AG, Germany

Additional Full-Scale Testing of Beam-to-Column Connections with Improvements in Welded Joints

Shinde, H, Sojo Univ; Obukuro, Y, Kumamoto Univ; Kurobane, Y, Sojo Univ; Makino, Y, Kumamoto Univ; Azuma, K, Dale, K, Sojo Univ, Japan

Static Strength of Doubler Plate Reinforced X-Joints under Out-of-Plane Bending

Liang, J X, Choo, Y S, Liew, J Y R, National Univ of Singapore, Singapore

The Strength of Multiplanar Overlap KK-Joints (0,-100%) of Rectangular Hollow Sections under Axial Loading

Liu, D K, Wardenier, J, Delft Univ of Technology, The Netherlands

Finite Element Analysis of Concrete Plugs in Tubular Steel Piles

Nezamian, A, Al-Mahaidi, R, Grundy, P, Monash Univ, Australia

88. RESOURCES & ENERGY IV (V. 1)

Thursday May 29 10:45 Eha

Chair: Hong, S W, Korea Research Inst of Ship and Ocean Eng, Korea
Co-Chair: Suzuki, M, Univ of Tokyo, Japan

Model Testing of a Variable-Pitch Aerodynamic Turbine

Finnigan, T, Energetech Australia ; Auld, D, Univ of Sydney, Australia

Wave Carpet™ — A Novel Deep Water Wave Energy Design

Koola, P M, KBSI, USA

Installation of a Scaleable Wave Energy Conversion System in Oahu, Hawaii

Gerber, J S, Taylor, G W, Ocean Power Technology, USA

An Impulse Turbine for Wave Power Conversion : Effects of Reynolds Number and Hub-to-Tip Ratio on the Performance

Thakker, A, Univ of Limerick, Ireland ; Khaleeq, H B, Sustainable Teknologies, Pakistan ; Takao, M, Matsue National College of Technology ; Setoguchi, T, Saga Univ, Japan

Effect of Rotor Geometry on the Performance of Wells Turbine

Setoguchi, T, Saga Univ; Takao, M, Matsue National College of Technology; Mohammad, M, Kaneko, K, Saga Univ, Japan; Thakker, A, Univ of Limerick, Ireland

THURSDAY 13:00

89. HYDRO LWT-III: Long Waves & Tsunamis 3 (V. 3)

Thursday May 29 13.00 Leahi

Chair: Dias, F, Ecole Normale Supérieure (Cachan), France

Co-Chair: Watts, P, Applied Fluids Engineering, USA

Partially Reflected Waves Measurement Using Acoustic Doppler Velocimeter (ADV)

Drevard, D, Meuret, A, Rey, V, Piazzola, J, Univ de Toulon et du Var; Dolle, A, Thetis S.A., France

Evaluating the Low Frequency Predictions of a Boussinesq Wave Model: Field Cases

Kirby, J T, Univ of Delaware; Chen, Q, Univ of South Alabama; Noyes, J, Scripps Institution of Oceanography; Elgar, S, Woods Hole Oceanographic Institution; Guza, T, Scripps Institution of Oceanography, USA

Numerical Modeling and Experiments of Wave Shoaling over Buried Cylinders in Sandy Bottom

Grilli, S T, Univ of Rhode Island; Voropayev, S, Testik, F Y, Fernando, H J S, Arizona State Univ, USA

Numerical Model Using the Fast Multipole Algorithm for Nonlinear Three-dimensional Free Surface Waves over Arbitrary Bottom

Fochesato, C, Dias, F, ENS-Cachan, France

Long Waves Associated with Local Storm Conditions along the Southwest Coast of South Africa

Moes, J, CSIR; Ruthenavelu, M, National Ports Authority of South Africa, South Africa

CONFERENCE TOUR: Polynesian Cultural Center

Buses depart at 14:15 from Hyatt Regency's side street.