

TECHNICAL PROGRAM

The Seventeenth (2007) International Offshore and Polar Engineering Conference

Lisbon, Portugal, July 1–6, 2007

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-2007 Technical Program Committee (TPC) received in writing before **February 22**, 2007 are reflected in this program. Paper titles in blue color are additions to the printed version of the technical program. Final corrections will be updated in the Conference Proceedings and the Final Program. Proceedings CD-ROM (ISBN 1-880653-68-0; ISBN 978-1-880653-68-5) will be available as a set of 4 volumes (3,600 pp. est.) from ISOPE during and after the Conference.

SUNDAY, July 1

Conference Reception

17:00

To Be Announced

MONDAY 09:00

1. OCEAN & ARCTIC INDUSTRY REVIEW (V. 1)

Monday July 2 09:00 Floriana

Chair: Langen, I, University of Stavanger, Norway

Co-Chair: Isaacson, M, University of British Columbia, Canada

Opening Address

Matsui, T, ISOPE President, USA.

Welcome Address

Heitor, M, Junior Minister for Science and Higher Education,
Portugal

Engineering Challenges Driven by the Navy and Navy after Next [Oral presentation]

Gruber, P L, Office of Naval Research, USA

Subsea Development in the Ormen Lange Offshore Project

Eklund, T, Hydro Oil and Energy, Norway

Polar Rules: Are Harmonized Standards Good for Shipping?

Santos-Pedro, V, Transport Canada, Canada

East Siberian Pipeline: State and Development

Koff, GL, Russian Ministry of Emergency Situations/Rosstroy;
Bekker, AT, Far-Eastern State Technical Univ, Russia

Eurocode 8 – Design for Earthquake Resistance of Foundations

Sêco e Pinto, P S, Univ of Coimbra /LNEC, Portugal

MONDAY 13:00

Plenary Presentation I (V.2)

Monday July 2 13:00 Floriana III
Seabed Characterisation and Models for Pipeline and Riser Interaction
Randolph, M F, White, D J, Univ of Western Australia, Australia
Introduction by Jin S Chung, ISOPE, USA

Plenary Presentation II (V.4)

Monday July 2 13:00 Aquamarin
Meeting the Latest Pipeline Application Challenges
Wright, E J, ExxonMobil Development Company, USA
Introduction by R. Ayer, ExxonMobil Research & Engineering Co., USA

Plenary Presentation III (V.2)

Monday July 2 13:00 Jade I
Advanced Technologies for Cruising AUV "URASHIMA"
Aoki, T, Tsukioka, S, Hyakudome, T, Ishibashi, S, Yoshida, H, Sawa, T, Ishikawa, A, Tahara, J, Yamamoto, I, Ohkusu, M, JAMSTEC, Japan
Introduction by W Koterayama, Kyushu University, Japan

2. RISK-BASED DESIGN (V. 2)

Monday July 2 14:00 Floriana I

Chair: Marshall, P, MHP Systems Engineering, USA
Co-Chair: Quiniou, V, TOTAL, France

Joint Distributions for Wind/waves/current in West Africa and Derivation of Multi Variate Extreme I-FORM Contours
Nerzic, R, ACTIMAR; Prevosto, M, IFREMER; Frelin, C, ACTIMAR; Quiniou, V, TOTAL, France

Simulation of a Moored FPSO in West Africa by Direct Approach and Response Surface Model
Ledoux, A, Principia; Fontaine, E, IFP; Le Guennec, S, TOTAL, France

Reliability and Response Based Design of a Moored FPSO in West Africa
Orsero, P, UTV; Fontaine, E, IFP; Quiniou, V, France

Multi Variate I-FORM Contours for the Design of Offshore Structures: Practical Methodology and Application to a West Africa FPSO
Francois, M, Bureau Veritas; Quiniou, V, TOTAL; Camps, C, Alvarez, J, Bureau Veritas, France

Wave Height is not the Whole Story
Marshall, M, MHP Systems Engineering, USA

Study on the Typhoon Disaster and Design Criteria in China for Offshore and Coastal Structures
Liu, D F, Pang, L, Pang, L, Xie, B T, Huang, Y, Ocean Univ of China, China

Sensitivity Approach for Modelling Stochastic Field of Keulegan Carpenter and Reynolds Number through a Matrix Response Surface
Schoefs, F, Moukinda, M, Nantes Atlantic Univ, France

3. HYDRO I: Sloshing & Violent Flows (V. 3)

Monday July 2 14:00 Floriana II

Chair: Dias, F, Ecole Normale Supérieure-Cachan, France
Co-Chair: Kim, Y H, Seoul National Univ., Seoul, Korea

On the Fluid Dynamics Models for Sloshing

Ghidaglia, J-M, LeCoq, G, Dias, F, Ecole Normale Superieure de Cachan, France

LNG Sloshing Simulations and Validation Model Tests

Bunnik, T, MARIN; Veldman, A, RuG; Huijsmans, R, TU Delft, The Netherlands

Studies on the Coupled Dynamics of Ship Motion and Sloshing Including Multi-body Interactions

Cho, S K, Hong, S Y, Kim, J, Park, I R, Maritime and Ocean Engineering Research Inst, Korea

An Investigation of Boundary Layer Mesh Resolution for Fluid Sloshing Analysis Using Computational Fluid Dynamics

Godderidge, B, Tan, M, Turnock, S, Univ of Southampton; Earl, C, BMT SeaTech, UK

Application of Dam-break Flow to Green Water Prediction

Chang, K A, Ryu, Y U, Mercier, R, Texas A&M Univ, USA

4. GEOTECH I: Cyclic Loading & Liquefaction (V. 2)

Monday July 2 14:00 Floriana III

Chair : Uchida, K, Kobe Univ., Japan

Co-Chair: Jeng, D-S, Univ. of Sydney, Australia

Liquefaction of Kawaihae Harbor and Other Effects of 2006 Hawaii Earthquakes

Brandes, H G, Nicholson, P G, Robertson, I, Univ of Hawaii, USA

Microzonation Study for Area with Liquefaction Potential Using Artificial Neural Networks

Chen, Y R, Hsieh, S C, Chen, P C, Chang Jung Christian Univ; Hui, Y W, Cheng Shiu Univ, Taiwan, China

Model Uncertainty Characterization in the Simplified Methods for Soil Liquefaction

Chi, Y Y, Chang Jung Christian Univ; Lee, Y F, Lee, D H, National Cheng Kung Univ, Taiwan, China

Response of Marine Clay to Cyclic Loading

Ding, J, Tsinghua Univ; Liu, H X, Tianjin Univ; Hu, L M, Tsinghua Univ, China

Pipe-soil Horizontal Dynamic Stiffness in Soft Soils

Orozco, M, Foray, P, INPG, France

Experimental Study on Moved Sediment under Wave Action

Liao, Y C, Lee, C P, Wang, C C, National Sun Yat-sen Univ, Taiwan, China

5. COASTAL I: Wave Modeling 1 (V. 3)

Monday July 2 14:00 Esmeralda

Chair: Fortes, J, LNEC, Lisbon, Portugal

Co-Chair: Kee, S T, Seoul National Univ. of Technology, Korea

Spectral Analysis and Applications of Shallow Water Waves

Ma, R J, Li, G X, Zhao, D, Jinan Univ, China

The Critical Angle of Wave Refraction Induced by Channel and a None-iteration Formula for Its Calculation

Zou, H Z, Hydrodynamic Research Inst of Perl River, China

Phase Velocity Changes due to the Tertiary Wave Interaction in Finite Water Depth

Kioka, T, Takimoto, K, Kitano, T, Nagoya Inst of Technology, Japan

A New Vorticity Integral Equation

Kang, H G, Chen, Q Y, Dalian Univ of Technology, China

Improving the Determination of Wave Regimes in TRANSFER and MAR3G Methodologies Using SWAN Model

Capitão, R, Fortes, C J, Carvalho, F, Coli, A B, LNEC, Portugal

Improving the Accuracy of DRBEM Wave Model by Using Radial Basis Function

Hsiao, S S, Chang, C M, National Taiwan Ocean Univ, Taiwan, China

A Parabolic Equation for Wave Propagation over Porous Media

Hsu, T W, National Cheng Kung Univ; Lan, Y J, Hsing Kuo Univ of Management; Chang, J Y, National Cheng Kung Univ, Taiwan, China

Comparison between a Boussinesq Model and Field Data

Pinheiro, L V, Fortes, C J E M, LNEC, Portugal; Walkley, M A, Leeds Univ, UK; Fernandes, J L M, Technical Univ of Lisbon, Portugal

7. HPM I: Adv Steel & Structures (V. 4)

Monday July 2 14:00 Aquamarin

Chair: Kang, K B, POSCO, Korea

Microstructure and Mechanical Properties of X80/X100 Grade Plates and Pipes

Seo, D H, Cho, S H, Kim, C M, Yoo, J Y, Kang, K B, POSCO, Korea

Effect of Carbon Content of Austenitic Stainless Steel (JIS SUS304) on Drill Life

Yoshikawa, A, Sakurai, K, Adachi, K, Okita, K, Osaka Sangyo Univ, Japan

A Study on the Polishing Roughness Effect of Steel Surface between the Adhesive Strength by Epoxy Resin

Chiaki, S, Tsushima, S, Tanizawa, K, National Maritime Research Inst, Japan

Calcareous Deposit Precipitation on Cathodically Polarized Carbon Steel in Sea Water: A Study in Natural Photosynthetic Active Environment Exposed to Daylight Cycles

Benedetti, A, IENI; Chelossi, E, Faimali, M, ISMAR/CNR; Magagnin, L, Politecnico di Milano; Passaretti, F, IENI/CNR, Italy

Development of Thick Steel Plates for Shipbuilding Having High Strength and Good Weldability

Kim, S H, Suh, I S, Kang, K B, POSCO, Korea

Effects of Ni and Thermomechanical Processing on the Effective Grain Size of Low Carbon HSLA Steels

Kang, J S, Lee, C W, Park, C G, Pohang Univ of Science and Technology, Korea

8. FLOW-INDUCED VIBRATIONS I (V. 3)

Monday July 2 14:00 Jade II

Chair: Miksad, R, Univ. of Virginia, Charlottesville, USA

Hydrodynamic Properties of the Group SLOR Using CFD and Model Tests

Bridge, C D, Dale, N, Hatton, S, 2H Offshore Engineering, UK; Karunakaran, D, Subsea 7, Norway

Behavior Characteristics of Encased Gas Transportation Pipeline in Offshore

Won, J H, Kim, M K, Ryu, D H, Yonsei Univ, Korea

Influence of Length of Exposure on Riser Interference in Deepwater from Comparison between Experimental and Analytical Work

Blevins, R, Consultant; Saint-Marcoux, J-F, Acergy, USA

Vortex-induced Vibration of Cylindrical Structures with Low Mass Ratio

Stappenbelt, B, O'Neill, L, Univ of Western Australia, Australia

Riser VIV Analysis by a CFD Approach

Huang, K, Chen, H C, Chen, C R, Texas A&M Univ, USA

Dynamic Response of Oscillating Flexible Risers under Lock-in Events

Riveros, C A, Utsunomiya, T, Kyoto Univ; Maeda, K, National Maritime Research Inst; Itoh, K, JAMSTEC, Japan

9. RENEWABLE ENERGY I: Tidal Energy & OTEC (V. 1)

Monday July 2 14:00 Opala III

Chair: Calisal, S, University of British Columbia, Canada

Co-Chair: Choi, J S, Maritime and Ocean Engineering Res Inst, Korea

Comparison between Kalina Cycle and Conventional OTEC System Using Ammonia-water Mixtures as Working Fluid

Asou, H, Yasunaga, T, Ikegami, Y, Saga Univ, Japan

Output Characteristics of Power Generation System from Tidal Currents for Navigation Buoy

Shiono, M, Naoi, K, Suzuki, K, Nihon Univ, Japan

Tidal Power Generation System Appropriate for Boarding on a Floating Buoy

Tanaka, D, DMW Corp; Kanemoto, T, Kyushu Inst of Technology, Japan

A Study on Effectiveness of Straight-wing Vertical-axis Hydro Turbine Generation System in the Tidal Current

Torii, T, Ookubo, H, Yamane, M, Nippon Steel Engineering; Sagara, K, Seiki, K, Sekieta, K, Tokai Univ, Japan

Interaction of Multi Arrayed Current Power Generations

Jo, C H, Park, K K, Inha Univ; Im, S W, RIST, Korea

Hydrodynamic Power Optimization of a Horizontal Axis Marine Current Turbine with Lifting Line Theory

Falcão de Campos, J A C, MARETEC Instituto Superior Tecnico, Portugal

Numerical Investigation in Vertical Axis Tidal Turbine: CFD and Vortex Method

Li, Y, Nabavi, Y, Calisal, S M, Univ of British Columbia, Canada

10. EARTHQUAKE 1 (V. 4)

Monday July 2 14:00 Ametista

Chair: Kawano, K, Kakoshima Univ, Japan

Seismic Behaviors of Sandy Soils Confined by Wall-type Underground Structure

Lu, C W, Chou, Y C, Hsieh, H S, Lai, S C, National Kaohsiung First Univ of Science & Technology, Taiwan, China

Seismic Site Effects for Weak Deposits in Korea

Park, D H, Kim, J Y, Lee, H W, Han, J W, Lee, S C, Hanyang Univ, Korea

Performance Based Evaluation of Offshore Structure to Wave and Seismic Forces with Uncertainties

Kawano, K, Kimura, Y, Park, M S, Kagoshima Univ; Iida, T, Osakasangyou Univ, Japan

Shear Strengthening of Reinforced Concrete Framed Shear Walls Using CFRP Strips

Chiou, Y J, National Cheng Kung Univ; Hsiao, F P, National Center for Research on Earthquake Engineering; Wang, J C, National Cheng Kung Univ, Taiwan, China

Shaking Table Tests for Lightweight Spillway on Small Earth Dam

Kawabata, T, Uchida, K, Kitano, T, Watanabe, K, Kobe Univ; Mohri, Y, National Inst for Rural Engineering, Japan

Prediction of Resonance in Gravity Quay Wall During Earthquakes

Hwang, J I, Seoul National Univ; Kim, S R, Dong-A Univ; Han, J T, Kim, M M, Seoul National Univ, Korea

Water Well Resonance Induced by Pre-earthquake Signals

Wang, C H, Huang, L H, National Taiwan Univ, Taiwan, China

11. UNDERWATER VEHICLES I: Communication & Control (V. 2)

Monday July 2 14:00 Jade 1

Chair : Pascoal, A M, Lisbon Technical Univ., Lisbon, Portugal

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

Communication Constraints and Requirements for Operating Multiple Unmanned Marine Vehicles (MUMVs)

Perrier, M, Brignone, L, Drogou, M, IFREMER, France

Observer Based Modelling of Vehicle Positions for Coordinatd Motion Control of Multiple Unmanned Marine Vehicles

Schneider, M, Glotzbach, T, Jacobi, M, Technical Univ of Ilmenau; Müller, F, Fraunhofer Application Center System Technology; Otto, P, Technical Univ of Ilmenau, Germany

Communication Networking for Multiple Unmanned Marine Vehicles (MUMVs)

Kaltchev, V, Potchekanski, V, Sciant AG, Bulgaria

Methods for Coordinated Navigation of Multiple Autonomous Underwater Vehicles

Engel, R, Kalwa, J, Atlas Elektronik, Germany

Coordinated Path-following Control of Multiple Autonomous Underwater Vehicles (AUVs)

Aguiar, A, Ghabcheloo, R, Pascoal, A M, Silvestre, C, Instituto Superior Técnico, Portugal

A Coast Line Following Preview Controller for the DELFIMx Vehicle

Gomes, P, Silvestre, C, Pascoal, A, Cunha, R, Instituto Superior Técnico, Portugal

MONDAY 16:20

12. HYDRO II: VIRTUE (V. 3)

Monday July 2 16:20 Floriana I

Chair: Ferrant, P, Ecole Centrale de Nantes, France

Simulation of a TLP in Waves Using the SWENSE Scheme

Gentaz, L, Ferrant, P, Alessandrini, B, Luquet, R, Ducrozet, G, Ecole Centrale de Nantes, France

Computational Hydrodynamic Derivatives by Numerical PMM

Gao, Q X, Vassalos, D, Univ of Strathclyde, UK

Validation of a CFD Code for Ship Sea-keeping Simulation

Marcet, R, Audiffren, C, Dassibat, C, de Jouët, C, Principia RD; Guillem, P E, Bassin d'Essais des Carènes; Pettinotti, B, Ecole Centrale de Nantes, France

Free Running Ship Model on Water Waves

Rousset, J-M, Ferrant, P, Ecole Centrale de Nantes, France

A Combined Approach for Ship Viscous Flow with Free Surface
Xie, N, Vassalos, D, Univ of Glasgow and Strathclyde, UK

13. HYDRO III: Field Waves (V. 3)

Monday July 2 16:20 Floriana II

Chair: Inoue, Y, Yokohama National Univ., Japan
Co-Chair: Y F, Liu, Y H, SOFEC, USA

Directional Wave Spectrum Estimation Based on a Vessel 1st Order Motions: Field Results
Simos, A N, Sparano, J V, Nagguri, E A, Univ of Sao Paulo; Matos, V L F, Petrobras, Brazil

A Simple Onboard System to Identify Encounter Wave Characteristics Using Measured Ship Motion Data
Fukunaga, K, Yamamoto, N, Ikeda, Y, Osaka Prefecture Univ, Japan

Estimation of Offshore Directional Spectra by Inverse Methodology at Porto Ferro, Sardinia
Coli, A, LNEC, Portugal; Conley, D C, NATO Undersea Research Centre, Italy; Santos, J A, LNEC, Portugal

Precise Measurement Method of wave Direction by GPS Buoy – Corrosion for Buoy Oscillation
Kouguchi, N, Yoo, Y J, Hou, D J, Hamada, M, Kobe Univ, Japan

Discussion on the Error of Wave Forecast by Markov Chain Theory
Lee, B C, Huafan Univ; Wu, L C, Doong, D J, National Cheng Kung Univ, Taiwan, China

14. GEOTECH II: In-situ and Field Tests (V. 2)

Monday July 2 16:20 Floriana III

Chair : Hyodo, M, Yamaguchi Univ, Japan

Field Instrumentation Monitoring of Soft Soil in an Offshore Land Reclamation Project
Arulrajah, A, Swinburne Univ of Technology, Australia; Bo, M W, Faber Maunsell Ltd, UK; Nikraz, H, Curtin Univ of Technology, Australia

Determination of Shear Strength Parameters of Natural Masado Slopes
Athapaththu, R G, Tsuchida, T, Suga, K, Kano, S, Hiroshima Univ, Japan

Field Investigation into Effectiveness of Shallow Treatment by Compaction Grouting
El-Kelesh, A M, Osaka Univ; Matsui, T, Fukui Univ of Technology; Tokida, K, Osaka Univ, Japan

A New Loading System of Swedish Weight Sounding Test Modified for Automatic Operation
Tanaka, T, Suemasa, N, Musashi Inst of Technology; Yamato, S, JIO; Katada, T, Musashi Inst of Technology, Japan

Development of Multi-purpose Large Diameter Sampler (KICT Type) and Its Application
Kim, Y C, Yune, C Y, Kim, Y S, Kang, J M, Hong, S W, Korea Inst of Construction Technology, Korea

Earth Pressure on an Unyielding Wall due to a Strip Surcharge
Fang, Y S, Tzeng, S H, National Chiao Tung Univ; Chen, T J, Sinotech Engineering Consultants, Taiwan, China

Design, Build Up and Control of a Large Scale Experimental Set-up for Laterally and Vertically Loaded Piles in Dry sand
Charue, N, Holeyman, A, Univ Catholique de Louvain, Belgium; Hübner, A, Saal, H, Univ of Karlsruhe, Germany; Tomboy, O, Univ Catholique de Louvain, Belgium

Geotechnical Investigation for Housing Construction by Swedish Ram Sounding in Japan

Yamamoto, A, Hirata, S, Daiwa House Industry; Tamura, M, Building Research Inst, Japan

Pilot Scale Field Test for Natural Fiber Drains

Kim, J H, Cho, S D, Lee, K W, Korea Inst of Construction Technology, Korea

Large Scale Statistical Comparison of CPT and CPT_n (Case Study – Various Sites with Sand Soils in Iran)

Marandi, S M, Ghotbi, A, Shahid Bahonar Univ, Iran

15. COASTAL II: Wave Modeling 2 (V. 3)

Monday July 2 16:20 Esmeralda

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

Propagation and Breaking of Solitary Wave on a Sloping Bed

Hsieh, C M, Hwang, R R, Academia Sinica; Peng, Y F, National Chi-Nan Univ; Yang, W C, Academia Sinica, Taiwan, China

The Natural Laboratory of Reggio Calabria

Barbaro, G, Univ “Mediterranea” of Reggio Calabria, Italy

Measurement of Water Surface Using Stereo Matching

Arita, M, Deguchi, I, Osaka Univ, Japan

Numerical Analysis of Nonlinear Shoaling Characteristics over Surf Zone Using SPH and Lagrangian Dynamic Smagoronski Turbulence Model

Cho, Y J, Lee, H, Univ of Seoul; Choi, K Y, SK Ltd; Shin, M S, Kunsan National Univ, Korea

Wave Forecast at the Tagus Estuary by Using the SWAN Model

Santos, J A, Coli, A B, Capitão, R, Fortes, C J, LNEC, Portugal

Influences of Site Specifics on Passing Ship Effects

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

Evaluation of Spectral Wave Breaking Model in Wave and Current Coexisting Field

Zheng, J H, Hohai Univ, China; Mase, H, Kyoto Univ, Japan

Non-buoyant Vertical Jet in Wave Environment: Experimental Study

Sun, Z C, Zhou, F, Li, L, Dalian Univ of Technology, China

17. HPM II: Fatigue & Fracture 1 (V. 4)

Monday July 2 16:20 Aquamarin

Chair: Ames, N, EWI, USA

S-N Fatigue Tests of 9% Nickel Weldments

Gioielli, P C, ExxonMobil Upstream Research; Zettlemoyer, N, ExxonMobil Development, USA

Characteristics of Corrosion Fatigue at the Weldment by Weld Improvements [Oral presentation]

Im, S W, Chang, I H, RIST; Song, H C, Mokpo National Univ; Park, K D, Pukyong National Univ; Kim, K Y, POSCO, Korea

Long Crack Arrest Concept in Heavy-thick Shipbuilding Steels

Inoue, T, Ishikawa, T, Iami, S, Koseki, T, Nippon Steel; Hirota, K, Tada, M, Mitsubishi Heavy Industries; Yamaguchi, Y, Matsumoto, T, Nippon Kaiji Kyokai; Yajima, H, Nagasaki Inst of Applied Science, Japan

Fatigue Characteristics of a Fatigue Resistant Steel Weldment

Youn, J G, Kim, H S, Yoon, Y C, Hyundai Heavy Industries, Korea

Effect of Water Environment on Fatigue Characteristics of Glass Ceramics

Tsujino, T, Setsunan Univ; Yoshikawa, A, Hiratsuka, A, Osaka Sangyo Univ; Ogawa, K, Osaka Prefecture Univ, Japan

18. FLOW-INDUCED VIBRATIONS II (V. 3)

Monday July 2 16:20 Jade II

Chair: Wu, M, Acergy, USA

Cross-flow Past a Pair of Moderately Spaced Oscillating Circular Cylinders

Hayder, M M A, Price, S J, McGill Univ, Canada

Damage Detection in Flexible Risers Using Statistical Pattern Recognition Techniques

Riveros, C A, Utsunomiya, T, Kyoto Univ; Maeda, K, National Maritime Research Inst; Itoh, K, JAMSTEC, Japan

Experimental Development and Verification of a Novel Vortex Induced Vibration Suppression Device

Spencer, D, Oceanic Consulting, Canada; Masters, R, AIMS International; Schaudt, K, SchaudtUS, USA

A New Model of the Lift Force on Oscillating Cylinder in Uniform Current

Huang, W P, Bai, X L, Cai, H B, Ocean Univ of China, China

A Small Scale Experiment for Multi-modal VIV Response of a Long Flexible Horizontal Cylinder

Prastianto, R W, Otsuka, K, Ikeda, Y, Osaka Prefecture Univ, Japan

19. RENEWABLE ENERGY II: Offshore Wind 1 (V. 1)

Monday July 2 16:20 Opala III

Chair: Herion, S, Karlsruhe University, Germany

Co-Chair: Faber, T, Germanischer Lloyd WindEnergie, Germany

Geotechnical Problems and Methods for the Design of Piles Supporting Tripod and Jacket Structures for Offshore Wind Energy Converters

Achmus, M, Abdel-Rahman, K, Florian, T W, Univ of Hannover, Germany

Analysis of Offshore Wind Turbines with Jacket Structures

Argyriadis, K, Klose, M, Germanischer Lloyd Industrial Services, Germany

Steel Solutions for the Construction of Offshore Wind Energy Plants

Luecken, H, Kern, A, Schriever, U, ThyssenKrupp Steel AG, Germany

Design of Large Diameter Hybrid Connections Grouted with HPC

Wilke, F, Schaumann, P, Leibniz Univ of Hannover, Germany

20. EARTHQUAKE 2 (V. 4)

Monday July 2 16:20 Ametista

Chair: Soemantri, S, Bandung Inst of Technology, Indonesia

Co-Chair: Hwang, J I, Seoul National Univ, Korea

Assessment Method for Seismic Safety Margin of Jacket Offshore Platform Structures

Wei, W, Jiao, S J, Feng, Q M, Ocean Univ of China, China

On-line Earthquake Response Tests for Evaluating Limit State and Deformation of River Dykes Founded on Saturated Sandy Deposits

Fujii, T, Fukken Co; Hyodo, M, Orense, R, Yamada, S, Yamaguchi Univ, Japan

Seismic Damages of Retaining Walls and Building Sites in Genkai Island by West off Fukuoka Prefecture Earthquake 2005

Tamura, M, Building Research Inst, Japan; Barrantes, J M, Univ of Costa Rica, Costa Rica; Hayashi, K, OYO Corp; Kikuchi, Y, Polus R&D Center of Life-Style; Susuda, K, Geotech Co; Wakai, A, Gunma Univ; Kamai, T, Kyoto Univ, Japan

Estimation of Earthquake Induced Sliding of Retaining Structure and Soil Slope with Mass-spring-slider Model

Watanabe, J, Miura, K, Toyohashi Univ of Technology; Yoshida, N, Tohoku-Gakuin Univ; Kohama, E, Port and Airport Research Inst, Japan

Stability of a Sea Levee under Earthquake Condition

Chen, J W, Du, Y C, National Cheng Kung Univ, Taiwan, China

21. UNDERWATER VEHICLES II: Deep Ocean Acoustics (V. 2)

Monday July 2 16:20 Jade 1

Chair : Koterayama, W, Kyushu Univ, Japan

A New Wave Measurement Using the Passive Underwater Acoustics

Li, J, Yu, D Y, Liu, H X, Xu, D L, Ocean Univ of China, China

Performance Evaluation of Data-link Protocols for Underwater Acoustic Communication

Kebkal, A, Evologics GmbH; Kebkal, K, TU Berlin; Komar, M, Evologics GmbH, Germany

The Acoustic Positioning with Coded Signal on the Full-depth Bottom Sampling System

Watanabe, Y, JAMSTEC; Mizuno, M, Okinawa National College of Technology; Yoshida, H, Ochi, H, JAMSTEC, Japan

Development of a Sediment Sampling System for the Deepest Oceans and Its Sea Trial Result

Ishibashi, S, Yoshida, H, Aoki, T, Osawa, H, Watanabe, Y, Miyazaki, T, Tahara, J, JAMSTEC, Japan

Evaluation of Underwater Acoustic Channel Capacity

Kebkal, K G, TU Berlin; Bannasch, R, Kebkal A G, EvoLogics GmbH, Germany

A Low-cost Vision System for Underwater Vehicles

Seo, D C, Park, B W, Choi, H S, Seoul National Univ, Korea

TUESDAY 08:00

22. HYDRO IV: CFD I (V. 3)

Tuesday July 3 08:00 Floriana 1

Chair: Eça, L, Instituto Superior Tecnico, Portugal

Co-Chair: Qiu, W, Memorial Univ. of Newfoundland, Canada

Verification and Validation in Computational Fluid Dynamics: Application to Both Steady and Unsteady Rowing Boats Numerical Simulations

Berton, M, Alessandrini, B, Barré, S, Kobus, J M, Ecole Centrale de Nantes, France

Code Verification of Unsteady Flow Solvers with the Method of the Manufactured Solutions

Eça, L, Instituto Superior Tecnico, Portugal; Hoekstra, M, MARIN, The Netherlands

Numerical Prediction of Seakeeping and Resistance Performance of a Catamaran with a Central Body of Revolution

Brizzolara, S, Bruzzone, D, Univ of Genova; Zotti, I, Univ of Trieste, Italy

Validation Methods and Benchmark Tests for a 2-D CIP Method Applied to Marine Hydrodynamics

Vestbostad, T M, Statoil; Faltinsen, O M, Kristiansen, D, NTNU, Norway

On the Accuracy of Free-surface Simulation by Use of Moving Particle Semi-implicit (MPS) Method

Lee, B H, Park, J C, Pusan National Univ, Korea

23. HYDRO V: Wave Analysis & Simulation (V. 3)

Tuesday July 3 08:00 Floriana II

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

Co-Chair: Mendes, A C, Univ. da Beira Interior, Portugal

A Numerical Solution of the 3D Irrotational Navier Stokes Equations for Non-hydrostatic Wave Propagation

Matsoukis, P F C, Zacharatos, T S, Democritus Univ of Thrace, Greece

On Focusing and Defocusing of Waves in Finite Water Depth

Teigen, P, Statoil, Norway

Breaking Probability of Wind Waves in Deep Water

Guan, C L, Wei, Y L, Liu, B, Ocean Univ of China, China

Radiation Stress and the Drift in Surface Gravity Waves with Rayleigh Friction

Weber, J E H, Univ of Oslo, Norway; Brostrom, G, Univ of Stockholm, Swedn; Christensen, K H, Univ of Oslo, Norway

Local Properties of Wave Modulation Observed by Wavelet Analysis

Hwung, H H, Huang, Z C, National Cheng Kung Univ, Taiwan, China

24. GEOTECH III: Soil Improvement (V. 2)

Tuesday July 2 08:00 Floriana III

Chair: Garnier, J, Laboratoire Central des Ponts et Chaussées, France

Effects of Shrinkage Histories due to Desiccation on the Engineering Properties of Reconstituted Ariake Clay

Tanaka, M, Port and Airport Research Inst; Kamei, T, Shimane Univ, Japan

Electrokinetic Cementation of Calcareous Sand for Offshore Foundations

Mohamedelhassan, E, Lakehead Univ; Shang, J, Univ of Western Ontario, Canada

The Improvement of Soft Marine Clay by Electrokinetic Injection and Electrode Leaching Method

Kim, S S, Kim, J Y, Hanyang Univ; Kang, B Y, Rural Research Inst; Koh, K H, Samsung E&C, Korea

Quality Characteristics of Improved Soil Columns by New Type Jet Grout Mixing Method

Tsuboi, H, Fudo Tetra Corp; Matsui, T, Fukui Univ of Technology; Fukada, H, Otsuka, M, Nitao, H, Isoya, S, Higashi, S, Kusakabe, F, Fudo Tetra Corp, Japan

A Study on Compaction Effect of the Ground by Hydraulic Filling and Numerical Analysis

Jang, Y S, Kim, K G, Sung, H D, Chun, B S, Hanyang Univ, Korea

A Case Study and New Concept of Soil Improvement Techniques on Reclaimed Land

Chen, C H, Chen, J W, National Cheng Kung Univ, Taiwan, China

An Estimation of Efficiency of Suction Drain Method by Stepped Suction Pressure

Kim, S S, Hanyang Univ; Song, Y J, Kang, M S, Samsung E&C; Lee, S I, Hanyang Univ, Korea

Centrifuge Model Tests on Failure Pattern of Group column Type Deep Mixing Improved Ground

Kitazume, M, Port and Airport Research Inst; Maruyama, K, Geodesign Co, Japan

25. COASTAL III: Tide and Current (V. 3)

Tuesday July 3 08:00 Esmeralda

Chair: Lalli, F, APAT, Italy

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

Application of Support Vector Machines in Tide-forecasting
Joorabchi, A, Zhang, H, Blumenstein, M, Griffith Univ, Australia

Application of Support Vector Machines in Tide-forecasting
Joorabchi, A, Zhang, H, Blumenstein, M, Griffith Univ, Australia

The Calculation of Check Water Levels in the Jiaozhou Bay and Adjacent Sea during 1989-2005

Du, L, Li, L, Li, P L, Zuo, J C, Ocean Univ of China, China

Sea Level Variation/change and Steric Contributions in the East China Sea

Yan, M, Zuo, J C, Du, L, Li, L, Li, P L, Ocean Univ of China, China

A Coupled-mode Technique for the Prediction of Wave-induced Set-up in Variable Bathymetry Domains and Groundwater Circulation on Permeable Beaches

Belibassakis, K A, Technological Educational Inst of Athens; Athanassoulis, G A, National Technical Univ of Athens, Greece

Numerical Simulation of Wave-Current Interaction [Oral presentation]

Lalli, F, Liberti, L, APAT; Romolo, A, Univ degli Studi 'La Sapienza'; Bassanini, P, Univ 'Mediterranea' Reggio Calabria, Italy

Numerical Prediction of Tidal Wall Effect against Storm Surge Inundation

Hiraishi, T, Port and Airport Research Inst, Japan

A Study of the Accuracy of On-air Acoustic Tide Gauges in Seas with Large Tidal Amplitudes

Sasa, K, Mizui, S, Hiroshima National College of Maritime Technology; Nagai, T, Shimizu, K, Port and Airport Research Inst; Mitsui, M, Kaijo Sonic Corp, Japan

27. HPM III: Fatigue & Fracture 2 (V. 4)

Tuesday July 3 08:00 Aquamarin

Chair: Fairchild, D, ExxonMobil Upstream Research Co., USA

Analysis and Burst-test of a Full-scale Welded Pipeline Repair Sleeve
Verley, R, Statoil; Tveiten, B, SINTEF, Norway

Influence of Shot-peening on Fine Grain Steels

Seki, K, Kanazawa Univ; Hashimoto, M, Hashimoto Eng Consultant; Gotoh, M, Hirose, Y, Kanazawa Univ, Japan

Fatigue Life Estimation for a Long Fatigue Crack in Large-scale Specimen in Imitation of Hull Skin Plate

Gotoh, K, Nagata, Y, Toyosada, M, Kyushu Univ, Japan

Crack Growth Testing of Pipeline Steels Using SE(T) Fracture Specimens

Ruggieri, C, Cravero, S, Univ of Sao Paulo, Brazil

Fracture Toughness in Welded Joints of High Strength Shipbuilding Steel Plates with Heavy-thickness
Ishikawa, T, Inoue, T, Shimanuki, H, Imai, S, Otani, J, Nippon Steel;
Tada, M, Mitsubishi Heavy Industries; Yamaguchi, Y, Matsumoto, T,
Nippon Kaiji Kyokai; Yajima, H, Nagasaki Inst of Applied Science, Japan

28. FLOW-INDUCED VIBRATIONS III (V. 3)

Tuesday July 3 08:00 Jade II

Chair: Lim, F K, 2H Offshore Engineering Ltd, UK

Free-span VIV Testing of Full-scale Umbilical
Lie, H, Braaten, H, MARINTEK; Nielsen, F G, Norsk Hydro, Norway

Vortex Induced Vibrations of Slender Marine Risers – Effect of Round-sectioned Helical Strakes
Lubbud, R, Tørum, A, Løset, S, Moe, G, Gudmestad, O T, NTNU, Norway

Flow Induced Deflections of a Flexible Cylinder Using Non-linear Oscillators to Represent the Forcing due to Vortex Shedding
Furnes, G K, Sørensen, K, Norsk Hydro Research Centre, Norway

Jumper VIV: New Issues for New Frontiers
Carruth, A L, Cerkovnik, M, 2H Offshore, USA

Interpretation and Design Guidance of Vortex Induced Motion Response of Deep Draft Semi-Submersible
Rijken, O R, Leverette, S, Atlantia Offshore Limited, USA

29. RENEWABLE ENERGY III: Offshore Wind 2 (V. 1)

Tuesday July 3 08:00 Opala III

Chair: Puthli, R, Karlsruhe University, Germany

A Study on a Semi-submersible Floating Offshore Wind Energy Conversion System
Shimada, K, Ohyama, T, Miyakawa, M, Shimizu Corp; Ishihara, T, Phuc, P V, Univ of Tokyo; Sukegawa, H, Tokyo Electric Power, Japan

Advanced Hybrid Finite-spectral Element Method for Offshore Wind Farm Design
Horr, A M, Gifford, UK

Design Concepts for the Fatigue Strength of Welds Improved by High Frequent Hammer Peening Methods
Weich, I, Ummenhofer, T, TU Braunschweig, Germany

Intelligent Wind Turbine Generator with Tandem Rotors Applicable to Offshore Wind Farm
Kanemoto, T, Galal, A M, Ikeda, K, Mitarai, H, Kobu, K, Kyushu Inst of Technology, Japan

30. SHIP STRUCTURES I (V. 4)

Tuesday July 3 08:00 Ametista

Chair: Fujikubo, M, Hiroshima Univ, Japan

Solution for Mega Container Ship Structure Safety
Nakajima, Y, Asano, T, Toyoda, M, IHI Marine United; Kiji, N,
Ishikawajima-Harima Heavy Industries, Japan

Analysis of Hull Girder Vibration by Dynamic Stiffness Matrix Method
Zhou, P, Zhao, D Y, Dalian Univ of Technology, China

Introduction of Engineering and Construction for Roll-on/roll-off Carrier
Kim, Y M, Sohn, S Y, Yoo, I S, Daewoo Shipbldg & Marine Engineering, Korea

Wake Wash Analysis of HS Catamarans

Benassai, G, Univ Parthenope of Naples; Begovic, E, Naples Univ Federico II, Italy

Computation of the Wavemaking Resistance of a Harley Surface Effect Ship

Harris, J C, Grilli, S T, Univ of Rhode Island, USA

Hull Monitoring of a French Frigate, Description, Treatment and Applications

Leguen, J-F, Bourdon, O, Dispa, H, Bassin d'Essais des Carhnes, France

Identification of Production Performance Criteria in Shipbuilding Industry

Saracoglu, B O, Turk Loydu Vakfi Iktisadi Isletmesi; Gozlu, S, Istanbul Tech Univ, Turkey

31. UNDERWATER VEHICLES III: (V. 2)

Tuesday July 3 08:00 Jade I

Chair: Rodriguez, R P, Escola Politecnica Superior, Girona, Spain

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

Remodeling to KAIKO7000II

Murashima, T, Nakajoh, H, JAMSTEC; Yamauchi, N, Sezoko, H, Nippon Marine Enterprises, Japan

One Method for Deep Sea Detailed Survey with an Autonomous Underwater Vehicle

Tsukioka, S, Hyakudome, T, Sawa, T, Yoshida, H, Yano, Y, JAMSTEC; Ashi, J, Univ of Tokyo; Yamamoto, F, Kinoshita, M, Kasaya, T, JAMSTEC; Morita, S, AIST; Ishikawa, A, Nippon Marine Enterprises, Japan

Development of a Motion Control System for Underwater Gliding Vehicle

Yamaguchi, S, Naito, T, Kugimiya, T, Akhoshi, K, Fujimoto, M, Kyushu Univ, Japan

Time Synchronization System for Cabled Observation Systems

Yokobiki, T, Araki, E, Goto, T, Asakawa, K, JAMSTEC, Japan

Development of New Structure Material for Underwater Vehicle

Hyakudome, T, Tsukioka, S, Ishibashi, S, Aoki, T, Aoki, Y, JAMSTEC; Madarame, H, Otori, K, Tsukeda, T, The Japan Steel works, Japan

“LUNA” – Testbed Vehicle for Virtual Mooring

Nakamura, M, Hyodo, T, Koterayama, W, Kyushu Univ, Japan

TUESDAY 10:30

32. HYDRO VI: CFD 2 (V. 3)

Tuesday July 3 10:30 Floriana I

Chair: Noblesse, F, NSWC-CD, USA

Co-Chair: Alessandrini, B, Ecole Centrale de Nantes, France

Development of Numerical Wave Tank, CADMAS-SURF/3D

Arikawa, T, Port and Airport Research Inst; Akiyama, M, Mizuho Information & Research Inst; Isobe, M, Univ of Tokyo; Takahashi, S, Shimosako, K, Port and Airport Research Inst, Japan

Numerical Wave Generation by RANS Solver

Rousselon, N, Univ of Strathclyde, UK; Shigunov, V, Germanischer Lloyd AG, Germany

CFD Application for Turbulent Flow Analysis around the Sails and Hull of a Sailing Yacht

Kim, W J, Chi, H R, Mokpo National Univ, Korea

CFD Viscous-inviscid Coupling Approach for Shallow Waters Navigation Problems

Lee, S K, American Bureau of Shipping, USA

Resistance and Propulsion Performance of an Underwater Vehicle Estimated by a CFD Method and Experiment

Nishi, Y, Soo, Z H S, Kashiwagi, M, Koterayama, W, Kyushu Univ, Japan

Numerical Simulations of Flows around Surface-piercing Body by Single-phase Level Set Method

Wan, D C, Shanghai Jiao Tong Univ, China

Study on a Structured Multi-block Cartesian Grid Method

Peng, Y F, National Chi-Nan Univ; Hsieh, C M, Academia Sinica, Taiwan, China

33. HYDRO IV: NWT and Simulation (V. 3)

Tuesday July 3 10:30 Floriana II

Chair: Tanizawa, K, National Maritime Research Institute, Japan

Co-Chair: Zang, J, Oxford Univ., Oxford, UK

A 2D Fully Nonlinear Wave-current Numerical Wave Tank Based on BEM

Huang, C C, Tang, H J, Wang, C T, Sun Yat-sen Univ, Taiwan, China

Direct Resolution of Navier-Stokes Equations for a Two-dimensional Numerical Wave Tank

Issa, H, Univ of Poitiers; Ba, M, ENSMA; Guilbaud, M, Univ of Poitiers, France

Surface Piercing Bodies in a Numerical Towing Tank

Bal, S, Istanbul Technical Univ, Turkey

Generation and Propagation of Landslide Tsunami in Coastal Region by NWT

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

Numerical Simulation of Motions of Moving Bodies in Waves

Li, T Q, Troch, P, De Rouck, J, Ghent Univ, Belgium

Evaluation of the Free Surface Elevation in a Time-domain Panel Method for the Seakeeping of High Speed Ships

De Jong, P, TU Delft; Van Walree, F, MARIN; Keuning, J A, Huijsman, R H M, TU Delft, The Netherlands

34. GEOTECH IV: Seepage & Consolidation (V. 2)

Tuesday July 3 10:30 Floriana III

Chair: Newson, T A, University of Western Ontario, Canada

Co-Chair: Yang, S, Norwegian Geotechnical Inst, Norway

The Rheophysics of Hydroplaning and Its Influence on the Runout Efficiency of Submarine Debris-Flows

Munachen, S E, Geohazard Research Centre, UK

A Characteristic of Consolidation by Suction Drain Method and Influence of Hardening Zone

Kim, S S, Han, S J, Kim, K N, Ahn, D W, Hanyang Univ, Korea

Applicability of T-bar and Ball Penetration Tests to Soft Clay Ground in Japan

Nakamura, A, Fukasawa, T, Toa Corp; Tanaka, H, Hokkaido Univ, Japan

A Study on Performance of Vertical Drains Using Composite Discharge Capacity Test

Chun, B S, Kim, E S, Lee, E J, Lee, J A, Hanyang Univ, Korea

Flow Capacity Reduction of Plastic Made PVD by Artificial Kinking

Jeong, Y E, Lee, S, Univ of Seoul, Korea

Settlement Prediction in a Soft Clay Deposit Using Back-analysis

Park, H I, Shim, S H, Kim, H S, Jung, S J, Hwang, D J, Samsung Corp, Korea

Study of Settlement Behavior of FPG Offshore Landfill Experience in Taiwan

Chiang, C E, Lin, I S, Huang, C R, Sinotech Engineering Consultants, Taiwan, China

35. COASTAL IV: Wave-Seabed Interactions (V. 3)

Tuesday July 3 10:30 Esmeralda

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

Co-Chair: Deguchi, I, Osaka Univ, Japan

Random Wave-induced Pore-pressure Build-up in Marine Sediment

Jeng, D S, Chew, C L, Univ of Sydney, Australia

Interpreting Field Behaviours of Embankment on Estuarine Clay

Oh, E Y N, Queensland Dept of Main Roads; Balasubramaniam, A S, Surarak, C, Chai, G W K, Griffith Univ, Australia

The Experiment of the Bed Shear Stress on the Irregular Wave

Huo, G, Wang, Y, Yin, B S, Hohai Univ, China; You, Z J, Dept. of Natural Resources, Australia

Dispersion of Suspended Particles in a Wave Boundary Layer

Ng, C O, Univ of Hong Kong, China

Impact of Wave Transformation on the Siltation Problems of Bavanpadu Fishing Harbour, Srikakulam District, A.P State, India

Palli, M R, Geddapu, R, Andhra Univ, India

The Principle of Rock-cycle Applies to the Evaluation-mode of Shear Wave Velocity in Sand

Lin, M C, Union-Tech Engineering Consultants; Chien, L K, National Taiwan Ocean Univ, Taiwan, China

Wave Transformations over Porous Media

Lin, M C, Hsu, C M, Ting, C L, Lee, Y J, Tsai, J F, National Taiwan Univ, Taiwan, China

37. HPM IV: Tubular Structures (V. 4)

Tuesday July 3 10:30 Aquamarin

Chair: Wardenier, J, Delft Univ of Technology, The Netherlands

Co-Chair: Threadgill, P L, TWI, UK

Chord Stress Function for Rectangular Hollow Section X and T Joints

Wardenier, J, van der Vegte, G J, Liu, D K, Delft Univ of Technology, The Netherlands

Chord Stress Functions for K Gap-joints of Rectangular Hollow Sections

Wardenier, J, van der Vegte, G J, Liu, D K, Delft Univ of Technology, The Netherlands

Adoption of a Radiused Hopper Knuckle: Recommendations for Design and Fabrication

Polezhayeva, H, Lloyds Register, UK; Kang, J K, Heo, J H, Daewoo Shipbldg & Marine Engineering, Korea

The Effect of Chord Load on the Ultimate Strength of CHS X-joints

Van der Vegte, G J, Kumamoto Univ/TU-Delft; Makino, Y, Kumamoto Univ, Japan; Wardenier, J, TU-Delft, The Netherlands

Cast Steel and Hollow Sections – New Applications and Technologies
Veselic, M, Herion, S, Puthli, R, Univ of Karlsruhe, Germany

38. PIPELINES & RISERS I: SCR (V. 2)

Tuesday July 3 10:30 Jade II

Chair: Fontaine, E, Institut Français du Petrole, France

Challenges and Technical Solutions – Petrobras P55 SCR Design
Simpson, P J, 2H Offshore Engineering, Brazil

SCR Behavior for a GoM Deep Water Location Considering High Pressure – Evaluation of Maximum Stress
Siqueira, E F N, Petrobras; Sousa, F J M, Queija, S M, COPPE/UF RJ, Brazil

Design of Steel Catenary Riser Connected to TLPs for Deepwater Fields
Bai, L X, Huang, P W, Ocean Univ of China, China

Design Consideration of Monitoring Systems for Deepwater Catenary Risers (SCRs)
Podskarbi, M, Karayaka, M, 2H Offshore, USA

The Comparison of Various SCRs for Bow Turret Moored FPSO in West Africa
Wu, M, Acergy, USA

Measured VIV Response of a Deepwater SCR
Dale, N M, Bridge, C D, 2H Offshore Engineering, UK

Observations and Modelling of Steel Catenary Riser Trenches
Bridge, C D, Howells, H A, 2H Offshore Engineering, UK

Steel Catenary Riser Design Philosophy at Touch Down Area
Clukey, E, Ghosh, R, BP Exploration & Production, USA

39. RENEWABLE ENERGY IV: Wave Energy 1 (V. 1)

Tuesday July 3 10:30 Opala III

Chair: Hong, S W, Maritime and Ocean Engineering Research Inst, Korea
Co-Chair: Brito-Melo, A, Wave Energy Centre, Portugal

Transverse Array Cylindrical Structures for Wave Energy Conversion
Caska, A J, Finnigan, T, Univ of Sydney, Australia

Numerical Modelling of Wave Energy Absorption by a Floating Point Absorber System
De Backer, G, Vantorre, M, Banasiak, R, Beels, C, De Rouck, J, Ghent Univ, Belgium

Modeling, Design, and Testing of a 2-Body Heaving Wave Energy Converter
Beatty, S J, Buckham, B, Wild, P, Univ of Victoria, Canada

Short Term Wave Forecasting, Using Digital Filters, for Improved Control of Wave Energy Converters
Tedd, J W, Frigaard, P, Aalborg Univ, Denmark

Material Selection for the Next Generation Wave Energy Extraction Impulse Turbine
Sahed, A, Jarvis, J A, Thakker, A, Buggy, M, Univ of Limerick, Ireland

Energy-loss Assessment for OWC Wave Power Systems in Off-design Working Conditions
Mendes, A C, Monteiro, W L, Univ da Beira Interior, Portugal

Segmented Small Oscillating Water Columns Using In-line Savonius Rotors
Dorrell, D G, Univ of Glasgow, UK; Hsieh, M F, National Cheng Kung Univ, Taiwan, China; Fillet, W, Univ of Glasgow, UK

Influence of Array Characteristics on Power Captured by a Heaving Buoy

Stallard, T J, Univ of Manchester, UK

40. SHIP STRUCTURES II (V. 4)

Tuesday July 3 10:30 Ametista

Chair: Jang, C D, Seoul National Univ, Korea

Co-Chair: Leguen, J-F, Bassin d'Essais des Carhnes, France

Optimization of a Ship Tanker Using Genetic Algorithm, Including Cost and Risk How Fitness Function

Sarzosa, D B, Univ of Sao Paulo, Brazil

Sensitivity Study of Extreme Value and Fatigue Damage of Line Tension in Mooring System with One Line Failure under Varying Annual Environmental Conditions

Gao, Z, Moan, T, NTNU, Norway

Simplified Analysis Tool for Ship-ship Collision

Yamada, Y, National Maritime Research Inst, Japan; Pedersen, T, Technical Univ of Denmark, Denmark

Studies on Acoustic Scattering Experiment of Finite Plate in Half Space II

Jiang, L, Zhao, D Y, Dalian Univ of Technology, China

Study on the Relationship between Shell Stress and Solid Stress in the Vicinities of Ship's Welded Joints

Osawa, N, Hashimoto, K, Sawamura, J, Nakai, T, Suzuki, S, Osaka Univ, Japan

Experimental Study on Deformations and Force Characteristics for Flexible Plate

Hyun, B S, Korea Maritime Univ, Korea; Liu, Z, Ocean Univ of China, China; Nho, I S, Chungnam National Univ, Korea

Development of Control Technology for Global Bending Distortion of Hatch-cover in Container Carrier during Fabricating Process

Lee, D J, Kim, K G, Shin, S B, Hyundai Heavy Industries, Korea

41. AQUABIOMECHANICS (V. 2)

Tuesday July 3 10:30 Jade I

Chair : Kato, N, Osaka Univ, Japan

The Unique Functional Role of Ventral Pouches during Prey Capture and Filtration in Lunge-feeding Rorqual Whales

Kot, B W, Univ of California at Los Angeles, USA

Roles of Lateral Keels and Rows of Scutes in Passive Control of Posture and Trajectory in Swimming Fishes and Other Aquatic Animals

Gordon, M S, Lauritzen, D V, Wiktorowicz, A M, Kot, B, Univ of California at Los Angeles, USA

Flow Induced by a Jellyfish

Ichikawa, S, Mochizuki, O, Toyo Univ, Japan

Flow around Propulsion Mechanism Using Fin with Dynamic Variable-effective-length Spring

Kobayashi, S, Makabayashi, M, Kobayashi, R, Jie, J, Morikawa, H, Shinshu Univ, Japan

Energy Reduction by Controlling Joint Stiffness for the Propulsion of a Biomimetic Underwater Vehicle

Guo, J H, Yen, W K, Tsai, J F, Chiu, F C, Lee, Y J, National Taiwan Univ, Taiwan, China

Study on Underwater Navigation System for Long-range Autonomous Underwater Vehicles Using Geomagnetic and Bathymetric Information

Hamada, D, Osaka Univ; Shigetomi, T, Nippon Kaiji Kyokai, Kato, N, Osaka Univ, Japan

Student Forum (All Student Participants Are Invited)

Tuesday July 3 12:00 TBA
E-mail by June 1 your intention of attending this meeting to meetings@isope.org.
Advisors: Prof. Harovel G. Wheat, USA; Dr. Sung Tai Kee, Korea; and Dr. Stefan Herion, Germany

TUESDAY 13:00

Tuesday July 3 13:00 Opala I+II
Plenary Presentation IV (IJOPE)
2007 Jin S Chung Award Lecture:
New Computational Mechanics for Ships and Offshore Engineering
— From Construction Stage to Structural Collapse Stage
Yukio Ueda, Osaka University, Osaka, Japan
Introduction by R H Knapp, Univ. of Hawaii, USA

Tuesday July 3 14:00 Floriana I

Chair: Sarmiento, A J N A, Institute Superior Tecnico, Portugal
Co-Chair: Bal, S, Istanbul Univ. of Technology, Istanbul, Turkey

Added Mass of Submerged Bodies with at Least One Plan of Symmetry by Seakeeping Panel Methods
Fernandes, A C, da Silva Mineiro, F P, COPPE/UFRJ, Brazil

Numerical Solutions of Hydrodynamic interaction of Ships at Forward Speed
Qiu, W, Memorial Univ of Newfoundland; Peng, H, Oceanic Consulting, Canada

Complementary Methods for Evaluating Steady Flow about a Ship
Yang, C, Kim, H Y, Löhner, R, George Mason Univ; Noblesse, F, NSWC-CD, USA

A New Boussinesq Model for Wave Run-up on Curved Structure Using Cut Cell Grids
Zang, J, Ning, D, Liang, Q, Taylor, P H, Eatock Taylor, R, Borthwick, A G L, Univ of Oxford, UK

Aerodynamic Design of the Princess Elizabeth Antarctic Research Station
Sanz Rodrigo, J, Gorle, C, van Beeck, J, Planquart, P, von Karman Inst for Fluid Dynamic, Belgium

Influence of Hull Form Geometric Definition in the Automatic Optimisation of SWATH Ships
Molinari, T, Brizzolara, S, Univ of Genova, Italy

Tuesday July 3 14:00 Floriana II

Chair: Kashiwagi, M, Kyushu Univ, Japan
Co-Chair: Mathai, T, The Glosten Associates, USA

Second-order Wave Drift Damping in Hydrodynamically Interacting Large Bodies
Mavrakos, S A, Chatjigeorgiou, I K, Mazarakos, T, Thanos, I, National Technical Univ of Athens, Greece

Relation of Maruo's Wave Drift Force and Kashiwagi's Reciprocity
Tsubogo, T, Osaka Prefecture Univ, Japan

Wave Drift Forces Affected by Low-frequency Oscillations
Nihei, Y, Bao, W, Kinoshita, T, Univ of Tokyo, Japan

Statistical Analysis of Low Frequency Motions of Floating Bodies in Shallow Water
Le Louarne, J-F, Prevosto, M, Guédé, Z, IFREMER, France

Water Wave Diffraction and the Surface Response Statistics Method
Walker, D A G, BP International; Eatock Taylor, R, Taylor, P H, Tromans, P S, Univ of Oxford, UK

The Radiation Damping Coefficients for Surge Heave and Roll Motion
Lee, J H, Incecik, A, Univ of Newcastle, UK

Wave Interaction with Semi-infinite Floating Membrane
Karmakar, D, Sahoo, T, IIT Kharagpur, India

44. GEOTECH V: Anchor & Offshore (V. 2)

Tuesday July 3 14:00 Floriana III

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

Shear Behaviour of Methane Hydrate Bearing Sand
Hyodo, M, Nakata, Y, Yoshimoto, N, Orense, R, Yamaguchi Univ, Japan

The Shear Stress and Mound Settlement of Nearshore Soft Marine Silts
Chien, L K, Feng, T S, Weng, H P, National Taiwan Ocean Univ, Taiwan, China

Efficient Anchoring Solutions for a High Risk and Complicated Bottom Profile in Persian Gulf
Shiri, H, Univ of Western Australia, Australia; Molaei, B, Iran Marine Industrial Co, Iran

The Influence of Disturbed Zone on Capacity of Suction Embedded Plate Anchors
Song, Z H, Hu, Y X, Curtin Univ of Technology; Gaudin, C, Univ of Western Australia, Australia

Experimental Studies on the Holding Power of Anchors
Hinata, H, Michimoto, J, Japan Coast Guard Academy; Kawamura, Y, Hiroshima National College of Maritime Technology; Sugiura, T, Japan Coast Guard Academy; Shoji, K, Tokyo Univ of Marine Science and Technology; Teramoto, S, Japan Coast Guard Academy, Japan

Cyclic Lateral Load Test of Offshore Drilled Shafts of Incheon 2nd Bridge in Marine Clay
Jeong, S S, Kim, Y H, Yonsei Univ; Kim, J H, Shin, S H, Samsung Engineering & Construction, Korea

Pockmarks, Created by Reduced Sedimentation or a Sudden Blow-out?
De Vries, M H, SINTEF; Svanx, G, Tjelta, T I, Statoil; Emdal, A J, NTNU, Norway

Tracked Subsea Trencher Mobility and Operation in Soft Clays
Morgan, N, Cathie, D, Cathie Associates, Belgium; Pyrah, J, Steward, J, CTC Marine Projects, UK

The Interaction Moving Anchor Chains and Rockfill Berms Tested in a Centrifuge Model
Van Lottum, H, Luger, D J, Bezuijen, A, GeoDelft, The Netherlands

45. LNG (V. 1)

Tuesday July 3 16:20 Esmeralda

Chair: Koo, J, ExxonMobil Research & Engineering Co., USA

Insights into Tuning of Equations of State Models of Natural Gas (LNG & CNG) and Liquefied Petroleum Gas (LPG) Bearing Petroleum Reservoir Fluids

Dandekar, A Y, Patil, S L, Univ of Alaska Fairbanks, USA

Operational Challenges in Transportation of Diverse Hydrocarbon Liquids: Commingled Flow of Gas-to-liquids (GTL) Products, Conventional Alaska North Slope (ANS) Crude and Heavy Crude through the Trans Alaska Pipeline System (TAPS)

Dandekar, A Y, Igbokwe, C G, Petil, S L, Chukwu, G A, Khataniar, S, Univ of Alaska Fairbanks, USA

Finite Element Analysis of a Modular Concrete LNG Terminal Concept

Aljeeran, F A, Niedzwecki, J M, Texas A&M Univ, USA

Membrane Type of LNG Carrier Thermal Strength Analysis

Li, L, Kotte, E, Menon, B, Cronin, D, Bleiburg, R, Tam, G, Lind, B, Shin, Y, Basu, R, Liu, D, American Bureau of Shipping, USA

48. PIPELINES & RISERS II: Pipelines 1 (V. 2)

Tuesday July 3 14:00 Jade II

Chair: Kim, W J, Shell International E&P, USA

Co-Chair: Solano, R F, Petrobras, Brazil

Unburied Offshore Pipeline Stability Analysis for Severe Storm Condition

Takatani, T, Maizuru National College of Technology, Japan

Occurrence of Spanning of a Submarine Pipeline with Initial Embedment

Gao, F P, Yang, B, Yan, S M, Wu, Y X, Inst of Mechanics, CAS, China

Analysis of Pipeline Fatigue Damage for Scour Induced Freespans

Drago, M, Pigliapoco, M, Ciuffardi, T, Snamprogetti, Italy

The Challenges of Pipeline Burial on Sloping Seabeds

Morrow, D R, Larkin, P D, Acergy Ltd, UK

Experimental Investigation on Shallowly Embedded Pipelines under Wave Action

Wang, L Z, Pan, D Z, Zhejiang Univ; Pan, C H, Zhejiang Inst of Hydraulics & Estuary, China

Large Scale Tests of Buried Bend with Lightweight Thrust Restraint Method Using Geosynthetics

Kawabata, T, Sawada, Y, Ogushi, K, Kobe Univ; Hirai, T, Mitsui Chemicals Industrial Products; Saito, K, Taisei Kikou; Uchida, K, Kobe Univ, Japan

Estimation of Incremental Resistance of Lightweight Thrust Restraint for Buried Bend Using Geosynthetics

Sawada, Y, Kawabata, T, Kobe Univ; Mohri, Y, National Inst for Rural Engineering; Uchida, K, Kobe Univ, Japan

49. RENEWABLE ENERGY V: Wave Energy 2 (V. 1)

Tuesday July 3 14:00 Opala III

Chair: Nagata, S, Saga University, Japan

Co-Chair: Kofoed, J P, Aalborg Univ, Denmark

Influence of Wave Spectrum Spreading on the Production of the SEAREV Wave Energy Converter

Gilloteaux, J-C, Babarit, A, Clément, Ecole Centrale de Nantes, France

A Refined Model for Float-type Wave Energy Conversion Device

Hadano, K, Koirala, P, Yamaguchi Univ; Matsuura, M, Mitsubishi Heavy Industries; Ikegami, K, Nagasaki Inst of Applied Science, Japan

Effects of Shape Parameters of an OWC Chamber in Wave Energy Absorption

Hong, K Y, Shin, S H, Hong, D C, Choi, H S, Hong, S W, Maritime and Ocean Engineering Research Inst, Korea

Effects of Location and Shape of OWC-chamber on the Hydroelastic Response of VLFS

Hong, S Y, Kyoung J H, Maritime and Ocean Engineering Research Inst, Korea

Influence of Spectral Bandwidth and Wave Groupiness on the Performance of an Axisymmetrical Wave Energy Converter

Saulnier, J-B, INETI; Ricci, P, Falcão, A F O, Instituto Superior Técnico, Portugal

The Effect of Small-scale Spatial Variation in Sea-state Parameters on the Ability to Predict WEC Power Delivery

Fasham, J C, Smith, G H, Heriot-Watt Univ; Venugopal, V, Univ of Edinburgh, UK

50. ADVANCED SHIPS (V. 4)

Tuesday July 3 14:00 Ametista

Chair: Iseki, T, Tokyo Univ of Marine Science and Tech, Japan

The Behaviour of Large Offshore Structures Supported by Aircushions

Van Kessel, J L F, Pinkster, J A, Delft Univ of Technology, The Netherlands

Wave-induced Structural Loads on Different Types of Aircushion Supported Structures

Van Kessel, J L F, Pinkster, J A, Delft Univ of Technology, The Netherlands

Estimate of the Parameters in the Equation of Ship's Oscillation Based on a Self Organizing State-space Modeling

Terada, D, Hiroshima National College of Maritime Technology; Iseki, T, Tokyo Univ of Marine Science and Technology, Japan

Bispectral Analysis of Non-linear Ship Response

Iseki, T, Tokyo Univ of Marine Science and Technology, Japan

Gravity Waterfront Structures: Comparative Study of Some SSI Computational Methods in a Performance Based Safety Evaluation Framework

Serra, J B, LNEC; Dias, M, Consulmar, Portugal

Structural Condition Assessment and Engineering Treatment of an Offshore Platform with Excessive Vibration

Wang, S Q, Bao, X X, Li, H J, Ocean Univ of China, China

Cyclic Plasticity for High Cycle Fatigue Process

Tsutsumi, S, Kyushu Univ, Japan

TUESDAY 16:20

52. HYDRO X: Model Test & Measurements (V. 3)

Tuesday July 3 16:20 Floriana I

Chair: Lee, M Y, Chevron Energy Technology, USA

An Assessment of the Wave Quality in the Edinburgh Curved Tank

Cruz, J M B P, Ocean Power Delivery; Pascal, R C R; Taylor, J R C, Univ of Edinburgh, UK

Investigation on the Grid Turbulence in a Cavitation Tunnel Using PIV Technique

Ryu, M C, Daewoo Shipbldg & Marine Engineering; Oh, J G, Kim, Y C, Suh, J C, Seoul National Univ, Korea

A Robust Procedure for Ultra Deepwater Model Testing

Lee, M Y, Ma, W, Chevron Energy Technology, USA; Stansberg, C T, Baarholm, R J, Fylling, I J, MARINTEK, Norway

The Comparison of PIV Measurements with Numerical Predictions for the Flow Patterns inside an Artificial Reef

Liu, T L, Chung Cheng Inst of Tech; Su, D T, Ming Hsin Univ of Science and Tech; Ou, C H, National Taiwan Ocean Univ, Taiwan, China

53. HYDRO XI: Wave-Body Interactions II (V. 3)

Tuesday July 3 16:20 Floriana II

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

Co-Chair: Ikeda, Y, Osaka Prefecture Univ, Japan

Effects of Arbitrary Seabed on Responses of Moored Floating Structures to Steep Waves

Yan, S, Ma, Q W, City Univ, UK

Numerical Wave Run Up Calculation on GBS Columns

Wellens, P R, Pinkster, J A, TU-Delft; Veldman, A E P, Rijksuniversiteit Groningen; Huijsmans, R H M, TU-Delft, The Netherlands

Nonlinear Wave Loads and Wave Interaction Effects for a Noncompliant, Multicolumn Structure

Teigen, P, Statoil, Norway; Gallagher, P, Mabilat, C, Atkins, Niedzwecki, J M, Texas A&M Univ, USA

Dynamic Analysis of Fish Cage Floating Collars in Waves

Fu, S X, Moan, T, NTNU, Norway

Hydrodynamic Analyses for Bow Diving of Multi Hull Ships Advancing in Waves

Inoue, Y, Kamruzzaman, M, Yokohama National Univ, Japan

Effect of Heave Plate on Semisubmersible Response

Chen, C Y, Ding, Y, Mei, X M, Mills, T, J. Ray McDermott Engineering, USA

The Selection of Wave Theory in the Simulation of Hydrodynamic Behaviour of Gravity Cage [Proceedings only]

Zhao, Y P, Li, Y C, Dong, G H, Dalian Univ of Technology; Gui, F K, Zhejiang Ocean Univ, China

54. GEOTECH VI: Piles & Caissons 1 (V. 2)

Tuesday July 3 16:20 Floriana III

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

Co-Chair:

Defects of Drilled Shafts and Effects of Surrounding Geo-materials Predicted by Sonic-echo Tests

Kim, M M, Seoul National Univ; Jung, G J, Cho, S M, Korea Highway Corp, Korea

Performance of Fixed Head Pile Group Embedded in Non-homogeneous Soil Subjected to Lateral Cyclic Loading-distributed Parameters Sensitivity Analysis

Hafaez, D H, Budkowska, B B, Univ of Windsor, Canada

The Mechanism of Large Diameter Rock-socketed Piles under Lateral Loads

Wang, J H, Shanghai Jiao Tong Univ; Li, Y L, Shanghai Foundation Engineering; Chen, J J, Fan, W, Shanghai Jiao Tong, Univ, China

Laterally Loaded Tubular Piles – Experiments and Numerical Analyses

Holeyman, A, Univ Catholique de Louvain, Belgium; Hübner, A, Saal, H, Univ of Karlsruhe, Germany; Tomboy, O, Univ Catholique de Louvain, Belgium

Numerical Investigation on Tapering Effects on the Pull-out Capacity of Suction Caissons in Clay

Zeinoddini, M, Nabipour, M, KNToosi Univ of Technology, Iran

A Lateral Performance Estimate for a Soil Cement Column Pile

Fukushima, Y, Suemasa, N, Katada, T, Noguchi, H, Musashi Inst of Technology, Japan

Evaluation of the Performance of Screw Piles Using Thermography

Arai, M J, Fujii, M, Watanabe, K, Tokai Univ; Nagata, M, Nippon Steel Engineering; Ijuin, H, Asahi Kasei Homes, Japan

Deformation of Vertical Excavation with Self-supported Double Soldier Pile Wall System

Lee, C J, Lin, E C, Huang, W S, Wei, Y C, Chiang, K H, National Central Univ, Taiwan, China

55. HYDRO XII: MetOcean 1: ESEOO Project I (V.3)

Tuesday July 3 16:20 Esmeralda

Chair: Grilli, S T, Univ of Rhode Island, USA

The ESEOO Project: Developments and Perspectives for Operational Oceanography at Spain

Fanjul, E W, Puertos de Estado, Spain

The ESEOO Regional Ocean Forecast System

Sotillo, M G, Puertos del Estado; Jordi, T, Ferrer, I, IMEDEA; Conde, J, INM; Tintoré, J, IMEDEA; Alvarez-Fanjul, E, Puertos de Estado, Spain

An Operational Met-ocean Regional Forecast System in the Galician Coast

Torres López, S, Vilasa, L U, Garcia Prado, C, Gomez Hombre, B, MeteoGalicia, Spain

An Operational Oceanography System for Local Areas on the Cantabrian Coast

Olabarrieta, M, Castanedo, S, Medina, R, Losada, I J, Univ de Cantabria, Spain

Operational Coastal System in the Basque Country Region: Modelling and Observations

Ferrer, L, González, M, Valencia, V, Madaer, J, Fontán, A, Uriarte, A, AZTI-Tecnalia, Spain

59. RENEWABLE ENERGY VI: Wave Energy 3 (V.1)

Tuesday July 3 16:20 Opala III

Chair: Falcao, A, Institute Superior Tecnico, Portugal

Co-Chair: Finnigan, T D, Univ of Sydney, Australia

Full-scale Data Assessment in OWC Pico Plant

Brito Melo, A, Neumann, F, Didier, E, Wave Energy Centre; Sarmento, A, Instituto Superior Tecnico, Portugal

Large Scale Mooring Line Experiments and Comparison with a Fully Dynamic Simulation Program with Application to WEC Installation

Johanning, L, Smith, G H, Heriot-Watt Univ, UK

Ocean Energy Systems Implementing Agreement: An International Collaborative Programme

Brito Melo, A, Wave Energy Centre, Portugal; Polaski, K, Sustainable Energy Ireland, Ireland; Bhuyan, G, Powertech Labs, Canada

Comparative Study of Baseline Environmental Studies in Offshore Renewable Energies: Its Importance

Huertas-Olivares, C, Patricio, S, Neumann, F, Wave Energy Centre;
Sarmiento, A, Wave Energy Centre/Instituto Superior Tecnico, Portugal

Experimental Research on Primary Conversion of a Backward Bent Duct Buoy

Nagata, S, Toyota, K, Imai, Y, Setoguchi, T, Saga Univ; Kyojuka, Y, Kyushu Univ; Masuga, Y, Ryokusei-sya, Japan

A Study on Motion of a BBDB Type OWC Wave Energy Device Considering Pneumatic Damping Coefficients in the Duct

Kim, J H, Maritime and Ocean Engineering Research Inst; Lew, J M, Hong, D C, Chungnam National Univ; Choi, H S, Hong, S W, MOERI/KORDI, Korea

Experimental and Numerical Study of Spar Buoy-magnet Spring Oscillator Systems Used as Point Wave Energy Absorbers

Grilli, A R, Merrill, J, Grilli, S T, Spaulding, M L, Univ of Rhode Island, USA

60. ARCTIC & ICE I: Barents Sea & Forecasting (V. 1)

Tuesday July 3 16:20 Jade I

Chair: Prinsenber, S, Bedford Inst of Oceanography, Canada

Co-Chair: Kubyshkin, N V, Arctic and Antarctic Research Inst, Russia

Conditions of Formation of Extremely Severe Ice Seasons in the Second Part of XX Century in the Barents Sea

Zubakin, G K, AARI, Russia; Eide, L I, Norsk Hydro, Norway; Buzin, I V, Lebedev, A A, AARI, Russia

Flexural Strength of Drifting Level First-year Ice in the Barents Sea

Krupina, N A, Kubyshkin, N V, Arctic and Antarctic Research Inst, Russia

Iceberg Drift in the Barents Sea According to the Observation Data and Simulation Results

Dmitriev, N E, Nesterov, A V, Arctic and Antarctic Research Inst, Russia

Offshore Arctic Data Collaboration (OADC)

Wiencke, M, Norwegian Research Council; Vassmyr, K-A, Acona Group, Norway

Modeling the Annual Variation of Sea-ice Cover in Baffin Bay

Tang, C C L, Dunlap, E, Bedford Inst of Oceanography, Canada

An Operational Iceberg Calving Model

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

Ice Model Tests of the Caisson Platform in Shallow Water Condition

Karulin, E B, Krylov Shipbuilding Research Inst; Blagovidov, L B, Karulina, M M, Krylov Shipbuilding Research Inst, Russia

WEDNESDAY 08:00

61. SUBSEA (V. 1)

Wednesday July 4 08:00 Floriana I

Chair: Samdal, O R H, Statoil, Norway

Co-Chair: Hyakudome, T, JAMSTEC, Japan

Subsea Pipeline Intervention in the Barents Sea

Såtendal, S H, Laug, R, Oaland, O, Statoil, Norway

IRIS – A Vision System to Reconstruct Natural Deep-sea Scenes in 3D

Allais, A-G, Brandou, V, Dentrecolas, S, Gilliotte, J-P, Perrier, M, IFREMER, France

Feasibility Study of the Deployment and Operation of Coiled Tubing Using a Subsea Lubricator and Dynamically Positioned Work Vessel
Stappenbelt, B, Sinclair, A, Univ of Western Australia; Jones, R, Seatrac, Australia

Small Hybrid Vehicles for Jellyfishes Surveys in the Midwater
Hoshida, H, Dhugal, L J, Yamamoto, H, Tsukioka, S, Shimura, T, Ishibashi, S, JAMSTEC, Japan; Duane, E, Monterey Bay Aquarium Research Inst, USA

62. HYDRO XIII: Coupled Systems (V. 3)

Wednesday July 4 08:00 Floriana II

Chair: Hwung, H H, National Cheng Kung Univ., Taiwan, China
Co-Chair: Ng, C O, Univ of Hong Kong, Hong Kong, China

Coupled Modal Analysis during Time Domain Dynamic Simulation of Floating Offshore Systems
Correja, F N, Jacob, B P, COPPE/UFRJ, Brazil

Numerical Analysis of the Ship Motion with Fishing Gear taken into Account – 1st Report: Comparison between Experiment and Calculation in 2-dimension
Momoki, T, Matsuda, A, National Research Inst of Fisheries Engineering, Japan

3-D Calculation for Multiple Floating Bodies in Proximity Using Wave Interaction Theory
Kashiwagi, M, Kyushu Univ, Japan

Derivation of CALM Buoy Coupled Motion RAOs in Frequency Domain
Le Cunff, C, Principia Houston, USA; Ricbourg, C, Heurtier, J-M, Principia R.D., France; Ryu, S, Duggal, A, Heyl, C, Liu, Y H, SOFEC, USA

Experimental and Numerical Study on the Interaction between Offshore Jacket Platform and Liquid in the Oil Tank
Zhou, J, Dong, R B, Jin, Q, Dalian Univ of Technology, China

The Influence of Steel Catenary Risers on the First Order Motions of a Semi-submersible
Huijs, F A, Marine Structure Consultants, The Netherlands

Experimental Study on the Interaction between Flow Current and Cage Structure
Yang, R Y, Tainan Hydraulics Laboratory; Hwung, H H, National Cheng Kung Univ; Jan, S J, Tainan Hydraulics Laboratory; Capart, H, National Taiwan Univ; Kuo, L A, Tainan Hydraulics Laboratory, Taiwan, China

Hydrodynamics of Dry Tree Semisubmersibles
Murray, J J, Tahar, A, Yang, C K, FloaTEC, USA

63. GEOTECH VII: Piles & Caissons 2 (V. 2)

Wednesday July 4 08:00 Floriana III

Chair : Budkowska, B B, University of Windsor, Canada
Co-Chair: Shogaki, T, National Defense Academy, Japan

Design and Execution Control of Steel Pile Foundation Method for House in Japan
Mizutani, Y, Kanematsu-NKK, Japan

Evaluation of Ultimate Bearing Capacity Acting on Base of Convex Part of Pile with Multi-stepped Two Diameters
Uchida, K, Kawabata, T, Shoda, D, Nadamoto, Y, Kobe Univ, Japan

Experimental and Analytical Studies on Pull-out Resistance of Suction Foundation
Zen, K, Chen, G Q, Kasama, K, Ito, T, Kyushu Univ, Japan

Evaluation of Quality Control Parameters of Driven Piles Using Digital Imaging

Kim, M M, Seoul National Univ; Yun, H S, KORDI; Seok, J W, Hwang, D J, Samsung Corp, Korea

A Study on the Applicability of In-situ Piling Method Using Electrical Power

Kim, T H, Cha, K S, Kim, S J, Daewoo Inst of Construction Technology, Korea

Efficiency of Pile Groups in Clay under Different Loading Rates

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

Interpretation of the Pile Loading Test Using Creep

Ku, C S, I-Shou Univ, Taiwan, China

Effective Stress Analysis for Dynamic Soil-single Pile Interaction

Lu, C W, Lai, S C, Chou, Y C, National Kaohsiung First Univ of Science and Technology, Taiwan, China

Field Retrieval of Suction Piles in Sand

Bang, S C, South Dakota School of Mines and Technology; Karnoski, S, Naval Facilities Engineering Service Center, USA

Modeling the Effects of Short- and Long-term Loading on Suction Caissons Using 2D- and 3D- Finite Element Method

Equihua, L N, Foray, P, INPG, France

64. HYDRO XIV: MetOcean 2: ESEOO Project II (V.3)

Wednesday July 4 08:00 Esmeralda

Chair: Losada, I J, Univ. of Cantabria, Spain

The ESEOO Relocatable Circulation Model for Emergency Purposes

Jordà, G, Espino, M, Univ Politecnica de Catalunya, Spain

TESEO, an Operational System for Simulating Oil Spills Trajectories and Fate Processes

Abascal, A J, Castanedo, S, Gutierrez, A D, Univ de Cantabria, Spain; Comerma, E, Applied Sceinces Associates, USA; Medina, R, Losada, I J, Univ de Cantabria, Spain

New Tools for Oceanographic Data Treatment via Web

Pérez, S, Alonso, M, López Maldonado, J D, Serrano, O, Puertos del Estado; Mader, J, Fontán, A, AZTI; Alvarez, E, Puertos del Estado, Spain

67. PIPELINES & RISERS III: Riser Mechanics 1 (V. 2)

Wednesday July 4 08:00 Jade II

Chair: Park, H I, Korea Maritime Univ, Korea

Co-Chair: Takatani, T, Maizuru National College of Technology, Japan

Non-linear Modal Analysis Applied to Riser Dynamics

Pesce, C P, Mazzilli, C E N; Sanches, C, Cunha, L D, Univ of Sao Paulo, Brazil

High Frequency Response of Flexible Riser

Vidic-Perunovic, J, Technical Univ of Denmark; Rishoj, N, NKT Flexibles, Denmark

An Analytical Procedure to Quantitatively Assess Drilling Induced Vibration (DIV)

Chang, R, Engineering Research Computing, USA

Damping Linearization for Frequency Domain Lazy-wave Riser Analysis

Takafuji, F C M, Martins, C A, Univ of Sao Paulo, Brazil

Temperature Effect on the Modal Properties of Laminated Composite Structures

Park, H I, Yang, H Z, Min, C H, Korea Maritime Univ; Jung, D H, MOER/KORDI, Korea

Advances in 3-dimensional Finite Element Analysis Techniques for Handling Assessment of Metallic Tube Umbilicals

Probyn, I N, Dobson, A, DUCO Ltd, UK; Martinez, M, Institut Francais du Petrole, France

69. RENEWABLE ENERGY VII: Wave Energy 4 (V. 1)

Wednesday July 4 08:00 Ametista

Chair: Aoki, T, JAMSTEC, Yokosuka, Japan

Co-Chair: Costa, J S D, Lisbon Technical Univ., Portugal

Mathematical Simulation of the OWC Douro Breakwater: Control Strategy

Brito-Melo, A, Martins, T, Wave Energy Centre; Sarmiento, A, Wave Energy Centre/Instituto Superior Tecnico, Portugal

Influence of Buoyancy Control Performance on Power Production by the Wave Dragon Nissum Bredning Prototype

Kofoed, J P, Tedd, J, Aalborg Univ; Friis-Madsen, E, Wave Dragon Aps; Nimskov, M, Balslev A/S, Denmark

Reactive Control and Phase and Amplitude Control Applied to the Archimedes Wave Swing

Valerio, D, Instituto Superior Tecnico, UTL; Beirco, P, Instituto Superior de Engenharia de Coimbra; Sa da Costa, J, Instituto Superior Tecnico, UTL, Portugal

Thermal Modelling of the Archimedes Wave Swing

Beirão, P, Valério, D, Sá da Costa, J, Instituto Superior Tecnico, Portugal

Assessment of Cost Efficiency of the Solar Heat Supply for the Southern Far East of Russia: An Example [Oral presentation]

Abbasov, P A, Grichkovskaya, DalNNIS RAASN, Russia

70. ARCTIC & ICE II: Arctic & Antarctic Shipping (V. 1)

Wednesday July 4 08:00 Jade I

Chair: Lee, H, ABS, Korea

Co-Chair: Bercha, F G, Bercha Group, Canada

Sound and Safe Shipping in Antarctic Waters

Knoop, H G, KBL Schiffahrtsgesellschaft mbH, Germany

A Conceptual Design of MOERI's Ice Model Basin

Lee, C J, Yoo, J H, Ahn, H S, Lee, Y Y, Lee, D H, Maritime and Ocean Engineering Research Inst, Korea

Canadian Arctic Escape, Evacuation, and Rescue Standards

Bercha, F G, Bercha Group; Radloff, E A, Transport Canada, Canada

Investigation of Anti-freezing Mechanism of Air-bubbling System for Ballast Tank Using Variable Specific Heat Coefficient

Koo, M J, Ha, M K, Choi, J W, Koo, K H, Jeon, J H, Samsung Heavy Industries; Kim, J H, Inha Univ, Korea

Followed by:

PANEL DISCUSSION

ARCTIC MARINE SHIPPING ASSESSMENT

Chaired by V. Santos-Pedro, Transport Canada, Canada

WEDNESDAY 10:30

71. FPSO/VLFS/TLP/Offshore I (V. 1)

Wednesday July 4 10:30 Floriana I

Chair: Capanoglu, C, I.D.E.A.S., Inc., San Francisco, CA, USA
Co-Chair: Walker, D A G, BP International, UK

Experimental Investigation of the Hydrodynamic Characteristics of a Novel Column Design for Semi-submersible Platforms
Sauder, T, Moan, T, NTNU, Norway

Feasibility of Deepwater Drilling in South China Sea by Applying ABS Concept
Guo, Y F, Ji, S J, Tang, C Q, China Oilfield Services, China

FourStar: A Novel Battered Column TLP Concept
Williams, A N, Heidari, H A, Large, S, Nagaraju, R, Atlantia Offshore, USA

Parametric Motion Responses for Deep Draft Production Units
Machado-Damhaug, U, Pettersen, E, Moss Maritime, Norway

Seacliff Pier Complex Decommissioning Program
Basavalingandoddi, C, California State Lands Commission, USA

Requalification Process for Existing Platforms: Validity of Conclusions Depends on Understanding of Interactive Parameters
Coombs, S, Carone Petroleum; Basavalingandoddi, C, State Lands Commission; Capanoglu, C, I.D.E.A.S., USA

72. HYDRO XV: METOCEAN 3; Tsunami(V. 3)

Wednesday July 4 10:30 Floriana II

Chair: Hong, S Y, Maritime and Ocean Engineering Research Inst, Korea
Co-Chair: Liu, D F, Ocean Univ of China, China

Tsunami Risk Assessment for Coastal Areas
Koff, G L, Georisk R&D Centre; Abbasov, P A, DalNIIS Inst; Ivanova, A M, Georisk R&D Centre, Russia

Computation of Surface Elevation of Tsunami Wave on 26th December, 2004
Palli, M R, Kumar, P S, Andhra Univ, India

Motions of the Mooring Vessel by the Observed Tsunami
Sakakibara, S, Yokohama Rubber; Igawa, H, Cho, I S, Iwamoto, Y, Kubo, M, Takeda, S, Kobe Univ, Japan

Effects of Rise Time and Rupture Velocity on Tsunami
Okumura, Y, Kawata, Y, Kyoto Univ, Japan

Tsunami Mitigation in Integrated Coastal Zone Management
Soekarno, I, Sumawiganda, S, Institut Teknologi Bandung, Indonesia

73. GEOTECH VIII: Foundation & Stability (V. 2)

Wednesday July 4 10:30 Floriana III

Chair: Shang, J, Univ of Western Ontario, Canada
Co-Chair: Fakharian, K, Amirkabir Univ of Technology, Iran

Heat Characteristic of Granular Ground Material Made from Coal Fly Ash
Iwahara, H, Shikoku Industry & Technology Promotion Center; Yamanaka, M, Kagawa Univ; Sasaki, K, Ishii, M, Shikoku Electric Power; Hasegawa, S, Masuda, T, Kagawa, Univ, Japan

Engineering Properties of Environmentally Friendly Grout Materials
Kim, B H, Yang, H C, Choi, K C, Chun, B S, Hanyang Univ, Korea

Simulation-based Analysis of Spudcan Interaction with Soil
Cai, C, Tan, X M, Guo, J Y, Lu, C, Inst of High Performance Computing, Singapore

Studies on Jackup Spudcans
Leung, C F, Chow, Y K, National Univ of Singapore, Singapore

Investigating Potential for Punch-through for Spudcan Foundations on Layered Clays
Hossain, M S, Randolph, M F, Univ of Western Australia, Australia

Effects of Heterogeneous Hydrogeological Structure on Slope Stability Analysis
Masumoto, K, Kamei, T, Shimane Univ, Japan

Slope Stability at North Flank of Storegga Slide
Yang, S, Kvalstad, T J, Solheim, A, Forsberg, C F, Norwegian Geotechnical Inst, Norway

74. COASTAL V: Beach Profile (V. 3)
Wednesday July 4 10:30 Esmeralda

Chair: Cho, W C, ChungAng Univ., Korea

A Phase-resolving, Coupled-mode Model for Wave-current-seabed Interaction over Steep 3D Bottom Topography: Parallel Architecture Implementation
Gerostathis, T P, Belibassakis, K A, Athanassoulis, G A, National Technical Univ of Athens, Greece

Simulation of Sorting in the Crossshore Direction and Topography Change of the Mixed Sand and Gravel Beach
Arimitsu, T, Kansai Electric Power; Deguchi, I, Osaka Univ, Japan

The Mechanism of Beach Erosion in Southern Part of Red River, Viet Nam
Deguchi, I, Araki, S, Nakaue, T, Bui, T V, Osaka Univ, Japan

Numerical Simulation on Medium-term Bar Movement
Kuriyama, Y, Port and Airport Research Inst, Japan

Cross-shore Change of Beach Profile Considering Stability of Beach Slope
Chó, W C, Chung-Ang Univ, Korea

Beach Nourishment Method to Improve Compatibility with Integrated Coastal Zone Management in Korea
Widayati, A Y W, Kim, K H, Kwandong Univ, Korea

Engineering Characteristics of Jeju Island Beach Sands
Nam, J M, Cheju National Univ; Yun, J M, Ansan College of Technology; Kim, T H, Korea Maritime Univ; Song, Y S, Korea Inst of Geosciences & Minerals Resources, Korea

Propagation of Solitary Waves over Permeable Rippled Beds
Chen, C H, Chang, H H, Huang, C J, National Cheng Kung Univ, Taiwan, China

The Study of Porosity Dynamics Induced by Water Wave in the Seabed
Lin, C K, China Engineering Consultants, Taiwan, China; Kulasiri, D, Lincoln Univ, New Zealand; Lin, J G, National Taiwan Univ; Chiu, Y F, Inst of Harbor and Marine Technology, Taiwan, China

77. PIPELINES & RISERS IV: Riser Mechanics 2 (V. 2)
Wednesday July 4 10:30 Jade II

Chair: Saint Marcoux, J-F, Acergy, USA

Deep Water Flowlines and Risers: Optimization of the Installed Cost and Thermal Performance

Paillusseau, C, ITP Interpipe, France; Thome, M, Socotherm, Brazil

Dynamic Optimization of Steel Risers

Tanaka, R L, Martins, C A, Univ of Sao Paulo, Brazil

Optimization of a Fitting Structure of CFRP Riser Pipe for Deep Sea Drilling

Watanabe, Y, Ito, N, Tokai Univ; Suzuki, H, Univ of Tokyo; Tamura, K, National Maritime Research Inst, Japan

A Development of Image Analysis Scheme for the Control of the Riser End

Xu, X S, Nakamura, M, Koterayama, W, Kyushu Univ, Japan; Zhu, J M, Ge, T, Shanghai Jiao Tong Univ, China

Pipe and Connector Design Criteria in the New ISO 13628-7 for Completion/workover Risers

Holden, H, SeaFlex; Kirkemo, F, Norway

Inspection Considerations for Deepwater Thick-walled Riser Systems

Thompson, H, Bowman, J, Stevens, D, Chevron Energy Technology, USA

79. IMPACT & COLLISION (V. 4)

Wednesday

July 4

10:30

Ametista

Chair: Shibue, T, Kinki Univ, Japan

Systematic Experimental Investigation of Free-Fall Lifeboat Performance

Simoes, A J, National Research Council; Veitch, B J, Memorial Univ of Newfoundland, Canada

Centrifuge Modelling of a Ship Impact against a Sloping Seawall

Gaudin, C, Univ of Western Australia, Australia; Colwill, R, BMT Asia Pacific, Hong Kong, China

Experimental Study of Unidirectional Wave Impact on the Three-dimensional Structure in the Splash Zone

Ren, B, Ding, Z Q, Wang, Y X, Dalian Univ of Technology, China

Numerical Simulation of Falling Behavior of an Upright Positioning Crew at Ship Collision

Shibue, T, Hayami, T, Muramoto, I, Kinki Univ, Japan

Numerical and Experimental Studies of Wave Impact Forces on Vertical Cylinder in Wave Basin

Shin, Y S, Halla Univ; Hong, K Y, KORDI; Jo, C H, Inha Univ; Cho, W C, Chung-Ang Univ, Korea

Chimera RANS Simulations of Slamming Forces and Wave Overtopping around Offshore Structures

Yu, K, Chen, H C, Texas A&M Univ, USA

Fundamental Impact Tests on Mortar Specimens for Failure Patterns of Foundation Piles due to Up-down Vibration in Earthquakes

Tamano, T, Kanaoka, M, Osaka Sangyou Univ; Shrestha, B, Life Prediction Technologies, Japan

Experimental Investigation of Wall-pressure Fluctuations on a Transiently Moving Hydrofoil by Empirical Mode Decomposition

Benramdane, S, Ecole Navale/ ENSIETA; Astolfi, J-A, Ecole Navale; Cexus, J C, ENSIETA; Boudraa, A O, Ecole Navale, France

80. ARCTIC & ICE III: Ice Environment (V. 1)

Wednesday

July 4

10:30

Jade I

Chair: Karlinsky, S L, RUBIN CDB ME, Russia
Co-Chair: Sayed, M, National Research Council, Canada

Minimum Thickness for Ice Dome Subjected to a Human Live Load
Kokawa, T, Hokkaido Tokai Univ, Japan

Environmental Effects of Oil and Gas Extraction in the Arctic
Pavlenko, V I, Glukhareva, E K, Arctic Resesarch Center, Russia

Wind Tunnel Study of the Electro-thermal De-icing of Wind Turbine Blades
Mayer, C, Ilinca, A, Fortin, G, Perron, J, Univ du Quebec a Chicoutimi, Canada

Preparation and Recovery Operation of a Long Term Seismic Station in the Antarctic Weddell Sea
Gerber, H W, TFH Berlin; Clauss, G F, TU Berlin, Germany

Dependence of Microwave Radiative Transfer Process in a Snow Layer on Thickness and Density
Sasaki, Y, National Defense Academy of Japan; Kakuta, S, JAMSTEC, Japan; Pavlov, V K, Norwegian Polar Inst, Norway

Distribution of Ice Cover in the Northern Part of the Pacific Ocean
Yakunin, L P, Far Eastern State Univ, Russia

WEDNESDAY 13:00

Plenary Presentation V (V.1)
Wednesday July 4 13:00 Florina III
Dredging Technology and the Environment in Europe
van Impe, W F, Ghent Univ, Belgium
Introduction by T Matsui, Fukui University of Technology, Japan

Plenary Presentation VI (V.4)
Wednesday July 4 13:00 Opala I+II
New Developments in Predicting Fatigue Damage of Structural Materials
Vasudevan, A K, Office of Naval Research, USA
Introduction by T Tsakalakos, Rutgers Univ, USA

Plenary Presentation VII (V.4)
Wednesday July 4 13:00 Opala III
Offshore Wind Energy in Europe – Actual Situation and Future Developments
Faber, T, Germanischer Lloyd Industrial Services, Germany
Introduction by S. Herion, Karlsruhe University, Germany

81. FPSO/VLFS/TLP/Offshore II (V. 1)
Wednesday July 4 14:00 Floriana I

Chair: Shi, L, CNPC Offshore Resources, China
Co-Chair: Li, L, American Bureau of Shipping, USA

An Introduction to Design, Construction and Installation of SABLE Tier II Compression Platform in Canada
Hong, S G, Mun, Y S, Shin, J R, Nam, H S, Shin, Y K, Daewoo Shipbuilding & Marine Engineering, Korea

Application of Simplified Platforms to Marginal Oil/gas
Yang, X G, Yu, H, Offshore Oil Engineering Co., China

A Damage Detection Algorithm Based on Partial Measurement for Offshore Jacket Platforms
Shi, X, Ocean Univ of China, China; Matsui, T, Meijo Univ, Japan; Li, H J, Gong, C, Ocean Univ of China, China

An Application of Direct Ritz Method for Random Seismic Response of Jacket Platform

Han, X S, Ma, J, Zhao, D Y, Zhou, B, Dalian Univ of Technology, China

A Case Study on Pier Scour Monitoring at Incheon Bridge in South Korea

Shin, J H, Seok, J W, Hwang, D J, Kim, Z C, Kim, J H, Samsung Corp;
Bahk, K S, Advanced Aquatic Technology, Korea

Structural Modification of Offshore Platform Using Cross-model Cross-mode Method

Zhang, M, Li, H J, Ocean Univ of China, China; Hu, S J, Univ of Rhode Island, USA

Fatigue Assessment of Jack-up Spudcan Connections to Legs

Wang, Z M, Lee, C, Sun, H H, American Bureau of Shipping, USA

Fatigue Analysis of Simple Jacket Platforms for Marginal Fields in Shallow Water

Liu, J M, China National Offshore Oil Corp, China

Mechanical Response of Slender Structural Members during Offshore Lifting Operations Involving Two Floating Vessels

Sandvik, P C, Yttervik, R, Kendon, T, MARINTEK, Norway

82. HYDRO XVI: METOCEAN 4; Typhoon (V. 3)

Wednesday July 4 14:00 Floriana II

Chair: Kawai, H, Port and Airport Research Inst., Yokosuka, Japan

Analysis of High Seas Generated by Hurricane Katrina

Tom, T H, Surflegend, Inc; Masae, H, Kyogo Univ; Ogawa, K, Surflegend, Inc, Japan

The Design of the Floating Breakwater of New Type and Its Damage Situation in the Typhoon Disaster and Verification of Design Methods

Arami, A, Nihon Univ; Takagi, N, National Research Inst of Fisheries Engineering ; Kobayashi, A, Nihon Univ, Japan

Lessons Learned from Recent Storm Surge Disasters and Estimation of Extreme Tidal Levels for Coastal Defense Performance by Using Stochastic Typhoon Model

Kawai, H, Takahashi, S, Hiraishi, T, Port and Airport Research Inst;
Hashimoto, N, Kyushu Univ; Kuniaki, M, Japan Weather Association, Japan

Improved Stochastic Simulation Technique and Its Application to the Multivariate Probability Analysis of Typhoon Disaster.

Pang, L, Liu, D F, Jiang, J T, Ocean Univ of China, China

A New Deep-ocean Data Buoy to the East of Taiwan and Its Observation Results

Hsu, Y J, Central Weather Bureau; Kao, C C, National Cheng Kung Univ;
Lee, B C, Huafan Univ, Taiwan, China

83. GEOTECH IX: Modeling & Simulation (V. 2)

Wednesday July 4 14:00 Floriana III

Chair : Chien, L-K, National Taiwan Ocean Univ, Taiwan, China

Co-Chair: Yamanaka, M, Kagawa, Univ, Japan

A Study on Consolidation Analytical Solution in Deep Soft Ground

Do, J N, Park, J S, Lee, D W, Chun, B S, Hanyang Univ, Korea

Numerical Assessment of Shear Modulus at Pre-failure State from Pressuremeter Test

Kwon, H M, Jang, S H, Chung, C K, Seoul National Univ, Korea; Jung, Y H, Northwestern Univ, USA

Implementation of an Anisotropic Hardening Constitutive Model for Large Deformation Analysis

Oh, S B, Yeungnam Univ; Kwon, O K, Keimyung Univ, Korea

A Study on the Improvement Characteristics in Soft Ground by Finite Element Method

Chun, B S, Oh, G, Hang, Y H, Oh, W K, Hanyang Univ, Korea

Numerical Analyses of a Spiral Groove Dry Gas Seal under Slip Flow Conditions

Yin, X N, Offshore Oil Engineering; Peng, X D, Zhejiang Univ of Technology, China

Model Tests and Calculations of Bearing Capacity of the Bucket Foundation in Soft Clay under Combined Static and Cyclic Loads

Wang, J H, Yang, H M, Li, X D, Liu, K, Tianjin Univ, China

Numerical Modeling of Suction Pile Installation in Clay with Effective Stress Analysis

Fakharian, K, Iraj, A, Amirkabir Univ of Technology, Iran

A New Empirical Formula to Assess the Excavation-induced Settlement

Lai, H L, Lee, D H, National Cheng Kung Univ; Sheu, C, National Kaohsiung Univ of Applied Science, Taiwan, China

Development of a New Equivalent Linear Algorithm

Park, D H, Hanyang Univ, Korea; Hashash, Y M A, Univ of Illinois, USA; Song, C Y, Kim, J Y, Lee, H W, Hanyang Univ, Korea

84. COASTAL VI: Floating Breakwater (V. 3)

Wednesday July 4 14:00 Esmeralda

Chair: Jeng, D-S, University of Sydney, Australia

Numerical Modelling and Optimization of Floating Breakwaters Using Density Distribution

Elchahal, G, Lafon, P, Univ of Technology of Troyes, France; Younes, R, Univ of Lebanon, Lebanon

Optimization of the Performance of Moored Floating Breakwaters

Loukogeorgaki, E, Angelides, D C, Aristotle Univ of Thessaloniki, Greece

3D Analysis of Free and Moored Twin-pontoon Floating Breakwaters

Diamantoulaki, I, Loukogeorgaki, E, Angelides, D C, Aristotle Univ of Thessaloniki, Greece

Analysis of the Performance of Arrays of Moored Hinged Floating Breakwaters

Diamantoulaki, I, Angelides, D C, Aristotle Univ of Thessaloniki, Greece

Wave-induced Motion and Seismic Response Characteristics of Floating Bridge Anchored with Submarine Cable and Fender

Kusaka, T, Chuden Engineering Consultants; Fukuda, I, Kansai Int'l Airport Co; Ueda, S, Tottori Univ; Shiraishi, S, Hokkaido Inst of Technology; Sugano, T, Port and Airport Research Inst, Japan

Performance of an Array of Newly Developed Floating Breakwaters in the Open Sea

Nakamura, T, Ehime Univ, Japan

Performance Evaluation of the Steel Structured Pontoon Floating Breakwater with Wing Walls

Kim, D S, Korea Maritime Univ; Kee, S T, Seoul National Univ of Technology; Lee, K H, Korea Maritime Univ; Park, K S, Posco Engineering & Construction; Park, D C, Park, D C, Sekwang Eng, Korea

Controlling Excessive Motions of Ships Moored with a Device Based on Coulomb Damping

Santos, J A, LNEC; Marinho, J, Mooring Consultant, Portugal

Research on Numerical Simulation of Multidirectional Wave Groups
Liu, S X, Bao, Y, Yu, Y X, Dalian Univ of Technology, China

87. PIPELINES & RISERS V: Pipelines 2 (V. 2)

Wednesday July 4 14:00 Jade II

Chair: Gresnigt, A M, TU Delft, The Netherlands;

The TOTAL Forvie North Project Pipe-in-pipe Experience
Paillusseau, C, Offredi, M, ITP Interpipe, France

Understanding the Response of Pipe-in-pipe Deepwater Riser Systems
Harrison, R I, Helle, Y D, 2H Offshore Engineering, UK

Subsea Pigging of the 28"/42" Dual-diameter, High Pressure Gas Export Pipeline Esgard-transport
Sanddal, O R H, Statoil; Eide, L O, Gassco; Lind, A, Statoil, Norway

Numerical Analysis of HT Subsea Pipeline against Upheaval Buckling by Pre-heating before Trenched
Liu, L M, CNOOC; Zhao, T F, Dalian Univ of Technology; Duan, M L, China Univ of Petroleum, China

Lateral Buckling Performance of Untrenched HT PIP Systems
Zhao, T F, Dalian Univ of Technology; Duan, M L, China Univ of Petroleum; Pan, X D, Dalian Univ of Technology, China

Reliability Assessment for the Failure from the Weld Defects in Pipelines Considering the Accuracy of Flow Detection by AUT
Kimura, F, Nippon Steel Engineering, Japan; Hobbs, R E, Wade, M A, Imperial College London, UK

89. HPM V: Composites & Smart Structures (V. 4)

Wednesday July 4 14:00 Ametista

Chair: Wheat, H G, Univ of Texas at Austin, USA
Co-Chair: Mouring, S E, U.S. Naval Academy, USA

Structural Analysis of a Composite Umbilical Cable
Knapp, R H, Univ of Hawaii; Guo, D, Shimabukuro, T, Structural Solutions, USA

An Experimental Study of the Response of Composite Pipes under Impact Loading
David-West, O S, Nash, D H, Banks, W M, Univ of Strathclyde, UK

Experimental Study of Air-entrained Concrete under Biaxial Loads after Freeze-thaw Cycles
Song, Y P, Shang, H S, Zhang, Z, Dalian Univ of Technology, China

Performance of FRP in Reducing Corrosion in Prestressed Elements
Sen, R, Mullins, G, Winters, D, Univ of South Florida; Suh, K S, PB Americas, USA

Numerical Simulations of Subcritical Crack Growth by Stress Corrosion in Fiber Reinforced Composites
Tang, Z B, Zhao, Q L, Zhang, X, Zhejiang Ocean Univ, China

Response of Composites Panels Subjected to Varying Impact Energies
Mouring, S E, Naval Academy, USA; Louca, L, Hayley, J, Imperial College, UK

Material Properties of Ductile Fiber Reinforced Cementitious Composite Using Recycled Fine Aggregate
Watanabe, K, Fujii, M, Arai, M J, Tokai Univ, Japan

Long-term Investigation of Composite Wrapping Systems for the Rehabilitation of Reinforced Concrete Structures
Karpaté, H, Wheat, H G, Jirsa, J O, Fowler, D W, Whitney, D P, Univ of Texas at Austin, USA

Optimization of the Fundamental Frequencies of Rotating Laminated Cylindrical Shells

Hu, H T, Wang, K L, National Cheng Kung Univ, Taiwan, China

90. ARCTIC & ICE IV: Ice & Arctic Systems (V. 1)

Wednesday July 4 14:00 Jade I

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

Co-Chair: Zubakin, G K, AARI, Russia

Arctic Crude Oil Transportation System Development

Iyerusalimskiy, A, Davis, D, ConocoPhillips, USA; Suvorov, A G, Kravchenko, V V, LUKOIL; Kalinin, A V, NARYANMARNEFTEGAS, Russia; Petrov, S, SOVCOMFLOT, Cyprus

Concept of Ice-resistant Production Platform on Gravity Base Substructure for 70 – 80 m Water Depth

Malyutin, A A, Karlinsky, S L, RUBIN CDB ME, Russia

Generalized Mathematical Model of Extreme Ice Loads on Offshore Engineering Structures in Frozen Seas

Bekker, A T, Sabodash, O A, Shubin, O A, Far-Eastern International Technical Univ, Russia

The Ups and Downs in Developing an Under-ice Moored Profiler Called the ICYCLER

Prinsenber, S J, Pettipas, R, Fowler, G A, Siddall, G, Bedford Inst of Oceanography, Canada

Definition of the Design Ice Ridge: Based on Data of the Expedition Studies in the Northeastern Barents Sea

Naumov, A K, Gudoshnikov, Y P, Skutina, E A, Arctic and Antarctic Research Inst, Russia

Analysis of Forces Drawing the Grounded Hummock

Goncharov, V K, St. Petersburg State Marine Technical Univ; Klementieva, N Y, Sazonov, K E, Krylov Shipbuilding Research Inst, Russia

The Ice Plate Modelling by Four-parametric Viscoelastic Body at the Moving Load on it

Kozin, V M, Pogorelova, A V, Inst of Machining and Metallurgy, RAS, Russia

WEDNESDAY 18:00

Conference Annual Banquet

18:00 Bus Departs

MUSEUM

THURSDAY 08:00

91. FPSO/MLFS/TLP/Offshore III (V. 1)

Thursday July 5 08:00 Floriana I

Chair: Teigen, P, Statoil, Norway

Co-Chair: Wu, Y X, Inst of Mechanics, CAS, China

Tension Leg Platform Response to Earthquake in Gulf of Mexico

Rijken, O R, Leverette, S J, Atlantia Offshore, USA

Probabilistically-robust Nonlinear Control of Offshore Platforms

Taflanidis, A A, California Inst of Technology, USA; Angelides, D C, Aristotle Univ of Thessaloniki, Greece; Beck, J L, California Inst of Technology, USA

Simulation of Extreme Wave Loads on TLPs

Bunnik, T, MARIN; Veldman, A, RuG, The Netherlands

Parametric Studies of Tension Leg Platform with Large Amplitude Motions

Zeng, X H, Liu, J Y, Liu, Y, Wu, Y X, Inst of Mechanics, CAS, China

Vibration Absorbers for Ultra Deep Water TLPs

Spillane, M W, Leverette, S J, Rijken, O, Atlantia Offshore Limited, USA

92. HYDRO XVII: METOCEAN 5 (V. 3)

Thursday July 5 08:00 Floriana II

Chair: Jenkins, A D, University of Bergen, Norway

Numerical Simulation and Mechanism Analysis of Freak Waves in Random Oceanic Sea States

Zhang, Y Q, Zhang, N C, Pei, Y G, Dalian Univ of Technology, China

Numerical Modeling and Analysis of Freak Wave Generation Mechanism due to Wave-current Interaction by Using the Spectral Element Method

Sung, H G, Hong, K Y, Kyung, J H, Hong, S Y, Maritime and Ocean Engineering Research Inst, Korea

The Selection of Block Size and Statistical Analysis of Extreme Value for the Nonlinear Ocean Wave Series and Fields

Liu, J D, Krogstad, H E, NTNU, Norway

Air-gap and Wave Run-up due to Wave, Current and Body Interaction

Zhang, F, Xu, J, Allers, J, Zhao, R, MARINTEK USA; Song, S, Chevron Energy Technology, USA

A New Solution to Estimate Run-up Levels

Barbaro, G, Martino, M C, Univ „Mediterranea“ of Reggio Calabria, Italy

Investigation of Ship Accidents due to Severe Weather Events

Lehner, S, German Aerospace Center; Rosenthal, W, GKSS; König, T, German Aerospace Center, Germany

93. GEOTECH X: Soil 1(V. 2)

Thursday July 5 08:00 Floriana III

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

Relationship between Cone Information and Undrained Shear Strength of Samples Obtained from Cone Sampler

Shogaki, T, National Defense Academy; Nishihara, A, Koa Kaihatsu Co, Japan

Effect of Specimen Height on Toyoura Sands Dynamic Strength Properties

Shogaki, T, Kumagai, N, National Defense Academy, Japan

Effects of Density and Confining Pressure on Mechanical Behavior of Crushable Soil

Yamada, S, Sato, K, Fukuoka Univ, Japan

A Study on the Strength Anisotropy of the Compacted Materials

Ham, T G, Korea Inst of Construction Technology, Korea

A Laboratory Study on Densification of loose Sands by Disc Shearing

Feng, T W, Yang, J H, Huang, J Y, Chung Yuan Christian Univ, Taiwan, China

A Study on Shear Behavior and Failure Mechanism of Sandstone-mudstone Interbedded Slope Using Ring Shear Test

Liao, C J, Lee, D H, National Cheng Kung Univ; Lin, H M, Leader Univ; Cheng, P Y, National Cheng Kung Univ, Taiwan, China

Studying on Influences of Anisotropy of Tock Mass on Determining the Pre-stress Using Kaiser Effect

Wu, J H, Chang, C F, National Cheng Kung Univ, Taiwan, China

Centrifuge Testing for the Design of Ship Impact Protection of Incheon Bridge Project

Kim, J H, Kim, Z C, Shin, H Y, Samsung Corp; Cho, S M, Korea Highway Co, Korea; Schaminee, P E L, Geodelft, The Netherlands; Gluver, H, COWI, Denmark

The Protection Efficiency of Dolphins Tested in a Geotechnical Centrifuge

Bezuijen, A, Schaminée, P, van Lottom, H, GeoDelft, The Netherlands

Zinc Sorption by Illite Considering Equilibrium Conditions

Hindu, A K, Takemura, J, Tokyo Inst of Technology, Japan

94. COASTAL VII: Submerged Breakwater (V. 3)

Thursday July 5 08:00 Esmeralda

Chair: Angelides, D C, Aristotle Univ. of Thessaloniki, Greece

Co-Chair: Kuroiwa, M, Tottori Univ, Japan

Wave Transmission over Submerged Breakwaters: Performance of Existing Models and Formulas

Makris, C V, Aristotle Univ of Thessaloniki; Memos, C D, National Technical Univ of Athens, Greece

Numerical Analysis on Deformation of Submerged Structures Composed with Various Size Materials Using DEM

Kim, M, Kuroiwa, M, Nishimura, T, Matsubara, Y, Tottori Univ, Japan

Blockage Effects and Wave Energy Dissipation by Submerged Porous Plates

Kee, S T, Seoul National Univ of Technology; Hur, D S, Gyeongsang National Univ; Kim, S J, Seoul National Univ of Technology, Korea

Numerical Modeling of an Artificial Surfing Reef in São Pedro Beach, Estoril, Portugal

Mendes, L, Monteiro, P, Fortes, C, Neves, G, LNEC; Bicudo, P, Instituto Superior Técnico, Portugal

Effect of Roughness and Permeability of a Submerged Breakwater in Wave-induced Dynamic Pressures

Neves, A C, Gomes, F V, Pinto, F T, Univ of Porto, Portugal

Wave Reflection and Vortex Evolution in Bragg Scattering of Water Waves

Hsu, T W, Lin, J F, National Cheng Kung Univ; Ou, S W, Tajen Univ; Tsai, C Y, Chang, J Y, National Cheng Kung Univ, Taiwan, China

Irregular Waves Propagating over a Submerged Breakwater

Chen, M L, Huang, C J, National Cheng Kung Univ, Taiwan, China

95. HPM VI: Advance in Welding Tech 1 (V. 4)

Thursday July 5 08:00 Aquamarin

Chair: Jin, H W, ExxonMobil Research & Engineering Co., USA

Hyperbaric GMA Welding for Contingency Repair Using a Fillet Welded Sleeve at 1,000m Water Depth

Woodward, N J, Isotek Electronics, UK; Knagenholm, H O, Norsk Hydro, Norway; Armstrong, M, Isotek Electronics, UK

Influence of Geometry and Welding Procedures on Welding Deformation of Stiffened Plates

Itoh, S, Nakata, K, Chimura, I, Serizawa, H, Murakawa, H, Osaka Univ, Japan

Effects of Welding Process on the Welding Distortion in Thin Panel Welded Structure

Shin, S B, Lee, D J, Kim, H G, Kim, D Y, Hyundai Heavy Industries, Korea

Effect of Grooving Corrosion at the Vicinity of Fillet Welded Joint on Ultimate Strength of hold Frame

Matsushita, H, Nakai, T, Yamamoto, N, Nippon Kaiji Kyokai, Japan

New Developments in Automatic Weld Modeling

Khurana, S P, Zhang, W, Gan, W, Suresh, B, EWI, USA

Statistical Investigation on Tensile Strength of Friction-welded Joint of Titanium to Copper

Tsujino, R, Yamamoto, Y, Sasaki, Y, Kyogoku, Y, Setsunan Univ; Ohi, H, Osaka Inst of Tech; Kawai, G, Osaka Sangyo Univ; Ogawa, K, Osaka Prefecture Univ, Japan

2007-JSC-229

A Study on the Prediction of Welding Distortion of 9% Ni Steel

Lee, H T, Kim, H G, Kim, K K, Shin, S B, Hyundai Heavy Industries, Korea

2007-JSC-483

Friction Stir Welding of SiC Whisker Reinforced Aluminum Composites

Yamamura, K, Yamamura MFG; Nishihara, T, Kokushikan Univ, Japan

97. PIPELINES & RISERS VI: Pipelines 3 (V. 2)

Thursday July 5 08:00 Jade II

Chair: Moshagen, H, Statoil, Norway

Co-Chair: Duan, M L, China Univ of Petroleum, China

Coating and Insulation Selection for Corrosion Protection and Flow Assurance of Offshore Pipelines and Risers

Price, J C, Laws, P, INTEC Engineering, USA

A On-line Monitoring Technology for Pipeline Inner Corrosion

Ji, D W, Huang, Y, Dalian Univ of Technology, China

The Langeded Project

Gjertweit, E, Holme, R, Statoil, Norway; Bruschi, R, Zenobi, D, Snamprogetti, Italy

Langeded – Intervention Work Optimisation

Pigliapoco, M, Drago, M, Patonico, F, Snamprogetti, Italy; Van Raaij, E, Statoil, Norway

Langeded – Pipe Capacity vs. Wall Thickness Selection

Torselletti, E, Bruschi, R, Vitali, L, Snamprogetti, Italy; Johannessen, A, Statoil, Norway

99. RELIABILITY & SAFETY I (V. 4)

Thursday July 5 08:00 Ametista

Chair: Yao, T, Osaka Univ, Japan

Co-Chair: Louca, L A, Imperial College, UK

Comparative Study of the Reliability of Cargo Oil System Configurations

Honaiser, E H, Centro Tecnológico da Marinha; Mendes, D A, Univ of Sao Paulo, Brazil

Preliminary Hazard Analysis of Fire Systems for Tankers

Martins, M R, Goyano, F H, Univ of Sao Paulo, Brazil

Fundamental Study on Risk Level of a Ship's Collapse Based on Time-domain Hydroelastic-plastic Analysis in Waves

Iijima, K, Fujii, M, Osaka Univ; Fujii, Y, Sanoyas Hishino Meisihō; Yao, T, Osaka Univ, Japan

A Probabilistic Fatigue Assessment Tool and Its Application to a Welded Steel Pipe

Fjeldstad, A, Wormsen, A, NTNU; Tveiten, B W, SINTEF Materials and Chemistry; Harkegard, G, NTNU, Norway

Establishment of Slope Failure Risk Model for the Community on Hillslope at Kaohsiung in Taiwan

Tsai, K J, Cheng, K T, Lin, C C, National Pingtung Univ of Science and Technology, Taiwan, China

Domino Effect Analysis of Process Equipments Using Fragility Curves

Yasseri, S F, Kellogg-Brown & Root, UK

100. ENVIRONMENT I: Oil Spill & Diffusion (V. 1)

Thursday July 5 08:00

Chair: Sayed, M, National Research Council, Canada

Co-Chair: Murai, M, Yokohama National Univ, Japan

Experimental Study on MHD Oil Separation from Oil-contaminated Seawater Using High Field Superconducting Magnet

Peng, Y, Sha, C W, Zhang, G Y, Zhao, L Z, Li, R, Lin, Z W, Cu, Y Y, Inst of Electrical Engineering, CAS, China

A New Technique for the Treatment of Fine particle Sludge in Oilfield Sedimentation Equipments

Zhang, Y, Jiang, M H, Zhao, L X, Daqing Petroleum Inst, China

An Evaluation of Dispersion Characteristics through a Sandy Mud Soil Layer

Inoue, K, Kawabata, T, Uchida, K, Tanaka, T, Kobe Univ, Japan

Experimental Study of Cold Discharged Water in Stratified Environment

Umeki, M, Ikegami, Y, Saga Univ, Japan

A Study on Control of a Spilled Oil Chasing Autonomous Buoy

Senga, H, Kato, N, Ma, R, Ito, A, Miyagawa, T, Yoshie, M, Fujita, I, Omori, H, Osaka Univ, Japan

Oil Spill Modeling Using 3D Cellular Automata for Coastal Waters

Shyue, S W, Soong, H G, National Sun Yat-sen Univ, Taiwan, China

Research on Velocity Field of Three Cubed Curve Style Hydrocyclone

Jiang, M H, Zhang, Y, Daqing Petroleum Inst, China

THURSDAY 10:30

101. FPSO/VLFS/TLP/Offshore IV (V. 1)

Thursday July 5 10:30 Floriana I

Chair: Utsunomiya, T, Kyoto Univ, Japan

Co-Chair: Yang, X G, Offshore Oil Engineering Co., China

Estimation of Current Loads on Side-by-side Moored Two Vessels

Yuck, R H, Park, M K, Choi, H S, Seoul National Univ, Korea

Wave Loading and Wave Effects on Shuttle Tanker and Barge in-Side-by-side Configuration: Comparison between Experiments and Calculations

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

Loading and Offloading of Two Floating Units in Shallow Water and in Deep Water with Severe Wave Environment

Li, L, Bleiburg, R, American Bureau of Shipping, USA

Time Domain Analysis on Hydroelastic Response of VLFS Considering Horizontal Motion

Kyoung, J H, Hong, S Y, Kim, B W, Maritime and Ocean Engineering Research Inst, Korea

Automated Development of Floating Offshore Structures in Deepwater with Verified Global Performances by Coupled Analysis

Lee, J Y, Samsung Heavy Industries; Korea; Clauss, G F, TU-Berlin, Germany

Experimental Study of Dynamic Hydrocyclonic Separators

Zhao, L X, Li, F, Zhang, Y, Daqing Petroleum Inst, China

102. HYDRO XVIII: METOCEAN 6 (V. 3)

Thursday July 5 10:30 Floriana II

Chair: Naito, S, Osaka Univ., Japan

Co-Chair: Rychlik, I, Lund Univ, Sweden

Spatial Models for the Variability of the Significant Wave Height on the World Oceans

Baxevasi, A, Chalmers Univ of Technology; Sweden; Borget, C, Univ Sabres, France; Rychlik, I, Lund Univ, Sweden

Spectral Analysis of Storm Waves Using the Hilbert-Huang Transform

Ortega, J, CIMAT, Mexico; Smith, G, Exeter Univ, UK

A Comparison of Segmentation Procedures and Analysis of the Evolution of Spectral Parameters

Hernandez C, J B, Univ Central de Venezuela, Venezuela,; Ortega, J, CIMAT, Mexico

A New Method for Applying the r-Largest Maxima Model for Design Sea State Prediction

Soukissian, T H, Kalantzi, G D, Hellenic Centre for Marine Research, Greece

103. GEOTECH XI: Soil 2 (V. 2)

Thursday July 5 10:30 Floriana III

Chair : Wong, P C, ExxonMobil Development Co., USA

Engineering Properties Evaluation of Geogrids by Index Tests

Jeon, H Y, Inha Univ, Korea

Model Tests for Analysis of Load Carrying Capacity of Geogrid Encased Stone Column

Lee, D Y, Korea Inst of Construction Technology; Yoo, C S, Sungkyunkwan Univ, Korea

A Study on the Geogrid Reinforced Stone Column System for Settlement Reduction Effect

Park, S S, GS E&C Corp; Yoo, C S, Sungkyunkwan Univ; Lee, D Y, Korea Inst of Construction Technology, Korea

Development of Visual Monitoring System for Displacement Measuring of Reinforced-soil Retaining Wall and Its Application

Han, J G, Hong, K K, Jeong, Y W, Chung-Ang Univ; Kim, Y S, KICT, Korea

Strength Characteristics of Reinforced Lightweight Soils for Recycling Dredged Soils

Kim, Y T, Kim, H J, Han, W J, Pukyong National Univ, Korea

Estimation of bearing Capacity for Dredged and Reclaimed Ground with Ultra-high Water Contents

Kim, J H, Lee, C H, Kwak, S D, R&E Geo; Chae, Y S, Univ of Suwon; Lee, S, Univ of Seoul, Korea

104. COASTAL VIII: Wave-Structure Interactions (V. 3)

Thursday July 5 10:30 Esmeralda

Chair: Mizutani, N, Nagoya Univ., Japan
Co-Chair: Gentile, R, Univ of Genova, Italy

Interaction of Non-linear Shallow Water Waves with Arrays of Rigid Vertical Cylinders

Basmat, A, ReneWave Ltd, Canada; Markiewicz, M, Petersen, S, Novicos GmbH, Germany

The Dynamic Pressure on Smooth and Rough Sloped Walls under Regular and Irregular Waves

Gentile, R, Lando, L R, Univ of Genova, Italy

Reduction of Impulsive Breaking Wave Pressure on Flaring Shaped Seawall by Installing a Slit Type Wave dissipating Structure

Murakami, K, Miyazaki Univ; Kamikubo, Y, Yatsushiro National College of Technology; Kataoka, Y, Kobe Steel, Japan

Modeling Random Wave Runup on Seawall near Shorelines with the FUNWAVE Model

Palha, A, Fortes, C J, LNEC, Portugal, Mase, H, Kyoto Univ, Japan

Nonlinear Wave Diffraction by a Fixed Submerged Circular Cylinder in Deep-water

Paixão Conde, J M, Didier, E, New Univ of Lisbon; Gato, L M C, Lopes, M F P, Instituto Superior Técnico, Portugal

Plunging Wave Impact on a Wall

Shu, J J, Nanyang Technological Univ, Singapore

Computation Model of Wave Runup on Smooth Surface Dike

Juang, J T, Chienkuo Technology Univ; Lin, C F, Fen-Chia Univ, Taiwan, China

The Protection of Coastal Structures from the Impact of Second Order Cnoidal Waves

Li, L, American Bureau of Shipping, USA; Watanabe, R, Marctec Limited, Canada

Analysis of Wave Forces Acting on Vertical Cylinder and Wave Transformations by 3-dimensional VOF Method

Lee, K H, Kim, D S, Kim, C H, Lee, S K, Korea Maritime Univ; Kee, S T, Seoul National Univ of Technology, Korea

Overtopping and Hydrodynamic Forces on Seawalls of Arc Crown in Regular Waves

Liu, H, Xue, L P, Shanghai Jiao Tong Univ, China

Comparison of the Expected Overtopping Probability of Korean East, West and South Sea

Kweon, H M, Park, H S, Gyeongju Univ, Korea

105. HPM VII: Advance in Welding Tech 2 (V. 4)

Thursday July 5 10:30 Aquamarin

Chair: Murakawa, H, Osaka University, Japan

Characterization and Mechanical Properties of High-strength Steel Weld Metals

Ramirez, J, McGaughy, T, EWI, USA

Effect of High Heat Input on CTOD Property of the Thick Steel Plate for Offshore Engineering

Park, J S, Jung, B Y, Lee, J B, POSCO, Korea

A Study on Surface Crack Growth Prediction in T-welded Joint of HY-100 Steel Plate

Kim, U N, Park, J S, Kim, P Y, Kim, K B, Hyundai Heavy Industries, Korea

Inconel 625 Performance as Hyperbaric GMA Welding Consumable for Diverless Retrofit Tee Hot Tap Applications

Woodward, N, Fostervoll, H, Ahlen, C H, Berge, J A, Armstrong, M, Statoil, Norway

107. PIPELINES & RISERS VII: Pipelines 4 (V. 2)

Thursday July 5 10:30 Jade II

Chair: Frye, C, MPN, Nigeria

Design and Installation Challenges of Jubarte Gas Pipeline in the Shore Approach Area

Solano, R F, Genaio, M C, Petrobras; Ayres, A, TETHYS Geofisica Ambiental; Cezar, G S, Petrobras, Brazil

Development of Girth Flaw Assessment Procedures for Pipelines Subjected to Axial Plastic Straining

Pisarski, H G, Cheaitani, M J, TWI, UK

Experience with the Design and Installation of Steel Export Lines for Deep Water Projects

Quintin, H, Acergy, France

Melting Ice Plugs in Pipelines by Applying Direct Electric Heating

Pedersen, A, Kulbotten, H, Lervik, J K, SINTEF Energy Research, Norway

Fault Protection on Direct Electrical Heating Cables

Bruaset, A, Pedersen, A, SINTEF Energy Research; Bremnes, J J, Nexans Norway; Bomes, A H, Statoil, Norway

109. RELIABILITY & SAFETY II (V. 4)

Thursday July 5 10:30 Ametista

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

Assessment of the Level of Uncertainty of the Hull Girder Bending Stresses

Ivanov, L D, American Bureau of Shipping, USA; Lynch, T J, Memorial Univ of Newfoundland, Canada

Comparison of Safety Levels of Ship's Hull Girders in Longitudinal Bending Designed by Different Criteria

Fujii, Y, Sanoyas Hishino Meisho; Iijima, K, Kawabe, H, Yao, T, Osaka Univ, Japan

Risk Analysis in Dry Docking Ship Operations According to FSA (formal Safety Assessment)

Modica, J E, Petrobras; Pessoa, M A O, Martins, M R, Conti, M B, Univ of Sao Paulo, Brazil

Procedure for the Development of Reliability Analysis in the Marine Industry

Natacci, F B, Centro Tecn da Marinha; Martins, M R, Univ of Sao Paulo, De Conti, M B, Univ of Sao Paulo, Brazil

Reliability Design Method of Fender System for Very Large Container Vessels

Yamase, S, Bridgestone Corp; Ueda, S, Tottori Univ, Japan

110. ENVIRONMENT II: Coastal & Bay Environment (V. 1)

Thursday July 5 10:30 Jade I

Chair: Neves, N, Lisbon Technical Univ., Portugal

Co-Chair: Kim, K H, Kwandong Univ, Korea

Laboratory Investigation of Mechanisms of Deterioration of the Ariake Sea Tidal Mud Caused by the Acid Treatment Practice and the Natural

Remediation of the Acid Contaminated Mud Induced by the Upward Seawater Seepage

Du, Y J, Hayashi, S, Saga Univ, Japan; Liu, S Y, Southeast Univ, China; Suetsugu, D, Saga Univ, Japan

Measurement Method for Nutrient by Ultraviolet Spectrometry

Arai, R, Nakatani, N, Okuno, T, Osaka Prefecture Univ, Japan

Assessment of Temperature Profile in Contaminated Tidal Flat in the Ariake Sea, Japan

Moqsud, M A, Hayashi, S, Du, Y J, Suetsugu, D, Saga Univ, Japan

An Exploration of Geo-environmental Condition of the Ariake Sea

Moqsud, M A, Hayashi, S, Du, Y J, Suetsugu, D, Tanaka, S, Sakai, K, Saga Univ, Japan

Muddy Seabed Environment and Oxygen Consumption in the Tidal Flat along the Kumamoto Coast of the Ariake Sea

Tokunaga, T, Saga Univ; Matsunaga, N, Kyushu Univ, Japan

Development and Assessment of a Fine Particle Acquisition Technique Using the Sodagarami Method in Field Tests

Tokunaga, T, Araki, H, Yamanishi, H, Kurogi, K, Ono, S, Saga Univ, Japan

A Simple Estimation Diagram for Deposition Configurations of Earth-sand Dumped from Barges

Yauchi, E, Chiba Inst of Technology; Asanuma, T, TOA Corp; Matsumi, Y, Tottori Univ, Japan

A Study of the Characteristics of Sea Clutter

Yim, J Z, Chou, C R, Wong, W K, Chen, T H, National Taiwan Ocean Univ, Taiwan, China

THURSDAY 14:00

111. FPSO/VLFS/TLP/Offshore V (V. 1)

Thursday July 5 14:00 Floriana I

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

Co-Chair: Heo, J H, Daewoo Shipbldg & Marine Engineering, Korea

Structural Analysis of Riser I-tube Connection Details for FPSO

Jung, S R, Kim, J T, Kim, M S, Daewoo Shipbldg & Marine Engineering, Korea

Global and Local Structural Analyses by Dynamic Loading Approach for the AGBAMI FPSO Hull and Topside Interface Structures

Jun, S H, Moon, S H, Lee, J Y, Kim, K S, Park, H J, Yeun, J H, Kang, J K, Kim, J T, Heo, J H, Daewoo Shipbldg & Marine Engineering, Korea

Optimization under Uncertainty Applied to FPSO Preliminary Design

Vasconcellos, J M, Oliveira, N G, COPPE/UF RJ, Brazil

The Exact Solutions of Tower-Yoke Mooring Systems

Liu, Y, FMC Technologies Floating System, USA

Impact-absorbing Capacity of Improved Ship-collision Protectors for FPSO

Kim, G S, Lee, D D, Jang, Y S, Hyundai Heavy Industries, Korea

Heading Analysis of Weathervaning Floating Structures: Why, How and Where to Make the Best of Them

Morandini, C R, Wong, J, AMOG Consulting, Australia

112. HYDRO XIX: METOCEAN 7 (V. 3)

Thursday July 5 14:00 Floriana II

Chair: Soukissian, T, Hellenic Centre for Marine Research, Greece

The Red Sea Wind-wave Atlas

Metwally, A, Canal Harbors and Projects; Abul-Azm, A G, Cairo Univ, Egypt

Azores Meteo-oceanographic Monitoring System

Azevedo, E M V, Univ of the Azores; Gongalo, V M H, Observatorio do Ambiente dos Agores, Portugal

Stochastic Simulation of Sea-state Propagating in the Ocean Based on Hindcast Data

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

Disaster Prevention Information System Based on Wireless/Mobile Communication Networks

Wu, C I, Kung, H Y, Chen, C H, Kuo, L C, Tsai, K J, National Pingtung Univ of Science & Technology, Tawian, China

The Variation Measurement of a Slope by Photogrammetry

Chang, S K, Jiang, F J, Lee, D H, National Cheng Kung Univ, Taiwan, China

On Turbulent Flux Observations from Moving Measurement Platforms

Jenkins, A D, Univ of Bergen, Norway

113. GEOTECH XII: Embankment (V. 2)

Thursday July 5 14:00 Floriana III

Chair : Kim, S S, Hanyang Univ, Korea

Co-Chair: Charue, N, Univ Catholique de Louvain, Belgium

Relation of Shear Wave Velocity by Bender Element Test and Residual Effective Stress

Nishida, K, Tanaka, H, Mitachi, T, Hokkaido Univ, Japan

Deformation Analysis of Embankment Foundation Using Non-coaxial Cam-clay Model and Comparison with Centrifuge Model Test Results

Kamei, T, Shibi, T, Shuku, T, Shimane Univ, Japan

A Conversion Procedure Using Plane Strain Cell for Modeling of a Test Vacuum-embankment on Soft Peaty Ground

Tran, T A, Mitachi, T, Hokkaido Univ; Yamazoe, N, C-way Engineering, Japan

Study on the Settlement Behavior of Embankment on the Soft Ground Improved with Short Sand Drains

Le, B V, Nguyen, D H V, HoChiMinh City Univ of Technology, Vietnam

Ground Improvement by Gravel Compaction Piles at the Rear of Port: Case Studies and Analyses

Sym, S H, Samsung Construction; Shin, H Y, Expert Group for Earth & Environment; Kim, S S, Han, S J, Hanyang Univ; Jung, S Y, Expert Group for Earth & Environment, Korea

Load Transfer by Soil Arch in Embankment Pile Systems

Lee, J H, Hong, W P, Chung-Ang Univ; Lee, K W, Korea Inst of Construction Technology; You, S K, Myong-Ji College, Korea

Coupled Analysis of the Behavior of Seabed Subjected to Sea Wave with Different Formulation of Geomaterials

Asahara, S, Miura, K, Toyohashi Univ of Technology; Otsuka, N, North Japan Port and Harbor Consultants; Ueno, K, Univ of Tokushima, Japan

Failure Mechanism of an Embankment due to Overflow

Fujisawa, K, Kobayashi, A, Yamamoto, K, Aoyama, S, Kyoto Univ, Japan

Wall Deflection and Surface Settlement Prediction by Feedback Analysis in Deep Excavation

Tseng, K H, Sheu, J S, National Kaoshiung First Univ of Science and Technology, Taiwan, China

114. COASTAL IX: Breakwaters (V.3)

Thursday July 5 14:00 Esmeralda

Chair: Ueda, S, Tottori Univ, Japan

Co-Chair: Yauchi, E, Chiba Inst of Technology, Japan

The Influence of Angle of Incident Wave on Irregular Wave Overtopping

Yan, S C, Ji, W W, Chen, J, Chen, G P, Hohai Univ, China

Study on a Wave Force Acting on a Filter Unit on Sloping Breakwater and Its Stability

Mizutani, N, Nagoya Univ; Shimabukuro, H, Okinawa Prefectural Government; Koyama, H, Fudo Tetra Corp, Japan

On Setup, Swash and Runup over Beach due to Plane Arrangement of Submerged Breakwaters

Hur, D S, Gyeongsang National Univ; Yoon, J S, Inje Univ; Lee, W D, Gyeongsang National Univ, Korea

Lateral Behavior of Soldier Pile Type Breakwater in Soft Ground

Jang, I S, Kwon, O S, Park, W S, Jeong, W M, Korea Ocean Research & Development Inst, Korea

Expected Sliding Distance of Vertical Slit Caisson Breakwater

Kim, D H, Kunsan National Univ; Yoon, G L, KORDI, Korea

Behaviors of the Soft Ground Breakwater with the Buoyant Piled Raft under Lateral Load Using Finite Element Analysis

Yun, H S, Kwon, O S, Jang, I S, KORDI; Lee, S J, Samsung Corp; Park, W S, KORDI; Kim, B S, POSCO Engineering & Construction, Korea

Scale Model Tests of the Rehabilitation Works of the South Breakwater of Praia da Vitória Harbour, Azores: Stability and Overtopping

Lemos, R, Silva, G, LNEC; Pinto, J R, APTG, Portugal

Measuring the Evolution of Armour Layer Damage in Scale Model Tests

Sousa, I A, Santos, J A, LNEC, Portugal

A Study of Wave Behavior on Harbor due to the Porous Quay-wall

Hsiao, S S, Fang, H M, National Taiwan Ocean Univ; Chang, H C, Keelung City Government; Huang, S Y, National Cheng Kung Univ, Taiwan, China

115. HPM VIII: NDE & Residual Stress (V. 4)

Thursday July 5 14:00 Aquamarin

Chair: Gotoh, M, Kanazawa Univ., Japan

Co-Chair: Benjamin, A C, Petrobras, Brazil

New Method for the Prediction of the Failure Pressure of Interacting Corrosion Defects

Benjamin, A C, Cunha, D J S, Petrobras, Brazil

Residual Stress Measurement of Fiber Texture Materials near Single Crystal

Mori, T, Gotoh, M, Sasaki, T, Hirose, Y, Kanazawa Univ, Japan

Numerical Study on Inherent Deformation of Thick Plates Undergoing Line Heating

Vega, A, Tajima, Y, Rashed, S, Murakawa, H, Osaka Univ, Japan

Study on Non-destructive Crack Inspection System by Using Magnetic Properties

Hashimoto, K, Osawa, N, Osaka Univ; Tanaka, Y, National Maritime Research Inst; Mori, H, Asai, H, Osaka Univ, Japan

Estimation of Thermal Residual Stresses in Bioglass-HAp Functionally Graded Coating

Horimoto, Y, Che, L, Gotoh, M, Kanazawa Univ, Japan; Yang, L, Dalian Inst of Light Industry, China; Hirose, Y, Kanazawa Univ, Japan

117. PIPELINES & RISERS VIII: Pipelines 5 (V. 2)

Thursday July 5 14:00 Jade II

Chair: Price, J C, INTEC Engineering, USA

Electromagnetic Modelling of Steel Pipes for DEH Applications

Lervik, J K, Kulbotten, H, SINTEF Energy Research; Nysveen, A, Hoyer-Hansen, M, NTNU, Norway

Limitations of Conventional Bending Rigs to Simulate Pipelay Processes Involving Plastic Deformation

Vennemann, O, Acergy, UK; Jackson, A, Bredero Shaw, Norway; Frazer, I, Acergy, UK

Research on the Instability of Flexible Pipes' Reinforcement Wires

Custodio, A B, Lemos, C A D, Troina, L M B, Almeida, M C, Petrobras, Brazil

Use of High Strength Steel Wire for Flexible Pipe in Low Sour Service Conditions – Impact on Deep Water Applications

Desamais, N, Felix-Henry, A, Taravel-Condât, C, Technip, France

Automatic Mooring System for Ship

Nakamura, M, Kajiwara, H, Inada, M, Kyushu Univ; Hara, S, Hoshino, K, Kuroda, T, National Maritime Research Inst, Japan

New Cold-expansion Process and Measuring System for Ensuring Dimensional Precision of Line Pipes

Arita, T, Oosako, H, Takano, T, Akiyama, M, Okui, T, Kuroda, K, Sumitomo Metal Industries, Japan

119. RELIABILITY & SAFETY III (V. 4)

Thursday July 5 10:30 Ametista

Chair: Boswell, L, The City Univ., UK

Co-Chair: Jo, J, Inha University, Incheon, Korea

A Safety Investigation of Damaged Retaining Walls

Karadeniz, H; TU Delft, Netherlands; Bayraktar, A, Basaga, H B, Karadeniz Technical Univ; Bilici, Y, DSI, Turkey

Hazard Analysis of Failures on the Substructure of Stationary Offshore Platform

Bellendir, E N, Finagenov, O M, Glagovsky, V B, The B.E. Vedenev VNIIG, Russia

Study of the Safety and Reliability of TLPs in the Consequence of Tendon Failure under Hurricane Environment

Shi, S, Zhou, Y, Houston Offshore Engineering; Jiang, L, Offshore Dynamics, USA

On Projects' and Organizations' Performance Uncertainty

Stoelsnes, R R, Univ of Stavanger / HolteProsjekt Consulting; Gudmestad, O T, Univ of Stavanger / Statoil, Norway – No response 2/22

120. ENVIRONMENT III: Environ & Numerical Modeling (V. 1)

Thursday July 5 14:00 Jade I

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

Co-Chair: Zhao, L X, Daqing Petroleum Inst, China

Numerical Simulations of Thermal and Concentrated Brine Discharge from Seawater Desalination Plants

Wu, Y J, Mei, N, Li, Y, Ocean Univ of China, China

GIS Processing of AVHRR/HRPT Data on a Research Vessel

Imai, R, Saga Univ; Kudo, K, JAMSTEC; Nagata, S, Toyota, K, Saga Univ, Japan

A Prediction on Human Impacts by a Seashell-digging to Ecosystem in a Tideland Park

Murai, M, Fujiwara, S, Yamanaka, R, Inoue, Y, Yokohama National Univ, Japan

Ecological and Social Assessment of an Artificial Lagoon in Kobe Airport Island [[Oral presentation](#)]

Sawada, T, Otsuka, K, Nakatani, N, Osaka Prefecture Univ, Japan

A Study on the ENSO Effects on the Sea Level of the Java Sea Using the Time Lag Analysis and an Oceanic General Circulation Model

Sofian, I, Kozai, K, Ohsawa, T, Kobe Univ, Japan

Eco-technological Process of Glass-ceramic Production from Galvanic Waste Water

Stanisavljevic, M P, Krstic, I M, Stankovic, J M, Univ of Nis, Serbia

Stability Study on Salt Fingers Convection under the Effect of Coriolis Force

Hwung, H H, National Cheng Kung Univ; Yang, R Y, Tainan Hydraulics Laboratory, Taiwan, China

Heat Transfer Mechanism of Rising Film on the Fluted Surface

Mei, N, Li, Y, Wu, Y J, Ocean Univ of China, China

**The 1st (2007) ISOPE
Strain-Based Design Symposium**

Lisbon, Portugal, July 1–6, 2007

47. SBD I: Materials I (V. 4)

Tuesday July 3 14:00 Aquamarin

Chair: Lillig, D, ExxonMobil Development Co., USA
Co-Chair: Liessem, A, Europipe, Germany

Introductory Remarks

Yong-Yi Wang, EMC-Square, USA
Eiji Tsuru, Nippon Steel, Japan
Dan Lillig, ExxonMobil Development Co., USA

X80 Linepipe Steels for Critical Applications

Siciliano, F, CBMM-Sao-Paulo, Brazil; Fazackerley, W J, EWI
Microalloying International, USA

**Development of a High Strength Steel Line Pipe for Strain-based Design
Application**

Shinohara, Y, Hara, T, Tsuru, E, Asahi, H, Terada, Y, Doi, N, Ayukawa, N,
Murata, M, Nippon Steel, Japan

High Strength Linepipes with Enhanced Deformability

Mannucci, G, Guagnelli, M, Anelli, E, Centro Sviluppo Materiali, Italy

X100 Induction Heated Bends from SAW Pipe

Takahashi, N, Sumitomo Metals Industries, Japan

**Thermal Aging Behavior during Coating of X80 High Strength Steel for
Line Pipe**

Shigesato, G, Shinohara, Y, Hara, T, Sugiyama, M, Asahi, H, Nippon Steel,
Japan

High Strength Spiral Linepipe for Strain-based Pipeline Designs

Collins, L E, Bai, D, Hamad, F, Chen, X, IPSCO, Canada

57. SBD II: Materials II (V. 4)

Tuesday July 3 16:20 Aquamarin

Chair: Tsuru, E, Nippon Steel, Japan
Co-Chair: Fairchild, D, ExxonMobil Upstream Research, USA

Welding Engineering for High Strain Pipelines

Newbury, B D, ExxonMobil Development, USA

**Material Design for Line Pipe Steel to Minimize HAZ Softening and to
Obtain Good HAZ Toughness**

Hamada, M, Hirata, H, Shitamoto, H, Okaguchi, S, Yamamoto, A,
Takahashi, N, Miura, M, Takeuchi, I, Sumitomo Metal Industries, Japan

Microstructure Modeling of HAZ Softening and Microhardness Tests

Chen, Y, Liu, M, Wang, Y Y, Engineering Mechanics Corp of Columbus,
USA

**Analysis of the Retardation in Fatigue Crack Propagation Considering
the Redistribution of Residual Stress Induced by Overload**

Jo, Y C, Seoul National Univ; Bang, J K, STX Shipbuilding; Song, H C,
Mokpo National Univ; Jang, C D, Seoul National Univ, Korea

**Study on the Relationship between Yield Ratio, Uniform Elongation and
Hardening Exponent of High Grade Pipeline Steel**

Ji, L K, Gong, S T, Huo, C Y, Zhao, X W, Chen, H Y, Tubular Goods
Research Center, CNPC; Li, X, Xi'an Shiyou Univ, China

**High Strain Capacity X60 Linepipe Steels with Superior Strain Aging
Resistance**

Jin, H W, ExxonMobil Research & Engineering, USA

Wednesday July 4 08:00 Aquamarin

66. SBD III: Testing and Evaluation (V. 4)

Chair: Mannucci, G, CSM, Italy
Co-Chair: Lee, K, Lincoln Electric, USA

Modelling and Measurements for the Assessment of a Full Scale Pipe Bend Test
Smith, S D, Pisarski, H G, TWI; Vlattas, C, Saipem UK, UK

Recent Advances in Curved Wide Plate Testing and Implications for Strain-based Design
Fairchild, D, ExxonMobil Upstream Research, USA

Local Strength Testing for Girth Welds in X-100 Pipes
Mohr, W, Edison Welding Inst, USA

Large-scale Testing Methodology to Measure the Influence of Pressure on Tensile Strain Capacity of a Pipeline
Gioielli, P, ExxonMobil Upstream Research, USA

Evaluation of High Strength Submerged Arc Heat Affected Zone Properties Utilizing Advanced Waveform Control
Lee, K, Lincoln Electric, USA

The Effect of Weld Defect on Properties of HSAW Linepipe
Xiong, Q R, Huo, C Y, Feng, Y R, Tubular Goods Research Center, CNPC, China

Development of New UST Inspection for UOE Pipe Mill
Nagase, M, Hirose, Y, Horikiri, T, Ookubo, H, Yamano, M, Sumitomo Metal Industries, Japan

Wednesday July 4 10:30 Aquamarin

76. SBD IV: Design and Project (V. 4)

Chair: Collberg, L, DNV, Norway
Co-Chair: Østby, E, SINTEF, Norway

Integrating Geohazard Demand and Structural Capacity Modelling within a Probabilistic Design Framework for Offshore Arctic Pipelines
Kenny, S, Barrett, J, Phillips, R, C-CORE; Popescu, R, Memorial Univ of Newfoundland, Canada

Strain-based Design Methodology for Seismic and Arctic Regions
Barbas, S T, ExxonMobil Upstream Research, USA

Tensile Strain Limits of X80 High-strain Pipelines under Seismic Loadings
Igi, S, JFE Steel; Suzuki, N, JFE R&D, Japan

Soil-pipe Interaction along Active Faults
Cocchetti, G, di Prisco, C, Galli, A, Nova, R, Politecnico di Milano, Italy

The Feasibility and Prospect of Strain-based Design to Pipelines in China
Chen, H Y, Ji, L K, Tubular Goods Research Center, CNPC, China

Key Issues Should be Considered for Application of Strain-based Designed Pipeline in China
Li, X, Xi'an Jiaotong Univ/CNPC/Xi'an Shiyu Univ; Li, H L, Xi'an Shiyu Univ, China

Strain-based Design of X80 Gas Pipeline in Seismic Areas in China
Gao, H, CNPC-CPPE, China

86. SBD V: Mechanics (V. 4)

Wednesday July 4 14:00 Aquamarin

Chair: Liu, M, EMC-Square, USA
Co-Chair: Tyson, W, CANMET, Canada

Crack Driving Force in Pipelines Subjected to Large Strain & Biaxial Stress Conditions – Part 1: FEA Approach
Mohr, W, EWI, USA

Crack Driving Force in Pipelines Subjected to Large Strain & Biaxial Stress Conditions – Part 2: Influence of Material Variables
Gordon, J R, EWIMicroalloying, USA

Crack Driving Force in Pipelines Subjected to Large Strain & Biaxial Stress Conditions – Part 3: Influence of Loading Variables
Gordon, J R, EWIMicroalloying, USA

Effect of Biaxial Stress on ECA of Pipelines under Strain-based Design
Tyson, W R, Shen, G, Roy, G, CANMET Natural Resources Canada, Canada

Apparent Fracture Toughness from Constraint Considerations and Direct Testing
Wang, Y Y, Liu, M, Engineering Mechanics Corp of Columbus, USA;
Horsley, D, TransCanada Pipelines, Canada

Predictive FEA Modeling of Full-scale Pressurized Tests
Minnaar, K, ExxonMobil Upstream Research, USA

Pressure Effects on Strain Concentration and Constraint for Strain-based Design
Mohr, W, Edison Welding Inst, USA

Fracture Control – Offshore Pipelines JIP: Use of ABAQUS/Explicit to Simulate Ductile Tearing in Pipes with Defects Loaded Beyond Yielding
Sandvik, A, Statoil ASA; Østby, E, SINTEF Materials and Chemistry;
Thaulow, C, NTNU, Norway

Comparison of Crack Driving Force Estimation Schemes for Weld Defects in Reeled Pipelines
Tkaczyk, T, Technip UK; O'Dowd, N, Univ of Limerick; Howard, B P, Technip UK, UK

Advanced Modeling of Plasticity of Linepipe Steels with Anisotropic Texture and Complex Loading History
Liu, M, Wang, Y Y, Engineering Mechanics Corp of Columbus, USA

Effects of Strength Matching, HAZ Softening, Material Property of Line Pipe on Strain Capacity of X80 Line Pipe Girth Welded Joint Subjected to Uniaxial Tensile Loading
Motohashi, H, Hagiwara, N, Tokyo Gas, Japan

96. SBD VI: Assessment Procedures I (V. 4)

Thursday July 5 08:00 Aquamarin

Chair: Wang, Y Y, EMC-Square, USA

Co-Chair: Barbas, S, ExxonMobil Upstream Research, USA

Development of Girth Weld Flaw Assessment Procedures for Pipelines Subjected to Axial Plastic Straining

Pisarski, H G, Cheaitani, M J, TWI, UK

A New Probabilistic Approach to Fracture Control of Offshore Pipelines: 1) Background

Sigurdsson, G, Collberg, L, Wästberg, S, DNV, Norway

A New Probabilistic Approach to Fracture Control of Offshore Pipelines: 2) Applications and Comparisons

Collberg, L, Wästberg, S, DNV; Levold, E, Statoil; Sigurdsson, G, DNV, Norway

Overview of Existing and Emerging Assessment Procedures for the Determination of Pipeline Tensile Strain Limits

Wang, Y Y, Liu, M, Engineering Mechanics Corp of Columbus, USA

Stress versus Strain Based Design: A Few Differences

Liessem, A, Europipe; Knauf, G, Zimmermann, S, Salzgitter Mannesmann Forschung, Germany

Current Research and Outstanding Issues in the Strain Based Design of Pipelines

Wang, Y Y, Liu, M, Engineering Mechanics Corp of Columbus, USA

Evaluation Precept for Strain Capacity of High Strength UOE Line Pipe Used in Strain-based Design Application

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

Application of WES2808 to Brittle Fracture Assessment for Gas Pipeline Girth Welds

Kubo, T, Igi, S, JFE Steel; Suzuki, N, JFE R&D; Toyoda, M, Ohata, M, Minami, F, Osaka Univ, Japan

Strain-based Design of High Strength Pipelines

Wang, Y Y, Liu, M, Rudland, D, Engineering Mechanics Corp of Columbus, USA; Horsley, D, TransCanada Pipelines, Canada

106. SBD VII: Assessments Procedures II (V. 4)

Thursday July 5 10:30 Aquamarin

Chair: Hugo, E, Tenaris, Argentina

Co-Chair: Minami, F, Osaka University, Japan

Fracture Assessment Procedure for Structural Components under Cyclic and Dynamic Loading

Minami, F, Ohata, M, Watanabe, D, Osaka Univ, Japan

Fracture Control – Offshore Pipelines JIP: LINKpipe

Berg, E, et al, NTNU, Norway

Fracture Control – Offshore Pipelines JIP: Proposal for Strain-based Fracture Assessment Procedure

Østby, E, et al, SINTEF Materials and Chemistry, Norway

Fracture Control – Offshore Pipelines JIP: Results from Large Scale Testing of the Effect of Biaxial Loading on the Strain Capacity of Pipes with Defects

Østby, E, et al, SINTEF Materials and Chemistry, Norway

Mechanical and Fracture Mechanics Evaluation of Heat Affected Zone of Girth Welded Joints

Ernst, H, Castelluccio, G, Bravo, R, Tenaris, Argentina

Fracture Mechanics Assessment of Displacement Controlled Installation Process of Line Pipes

Ernst, H, Bravo, R, Buschiazo, A, Tenaris, Argentina

Probabilistic Structural Reliability Assessment of Reeled Pipes – Multiple Cycles Cases

Ernst, H, Bravo, R, Passarella, D, Tenaris, Argentina

116. SBD VIII: Compressive Strain Limit and Buckling (V. 4)

Thursday July 5 14:00 Aquamarin

Chair: Suzuki, N, JFE, Japan

Co-Chair: Bruschi, R, Snamprogetti, Italy

Compressive Strain Limits and Seismic Integrity of X80 High-strain Pipelines

Suzuki, N, JFE R&D; Igi, S, JFE Steel, Japan

Methodology for Measurement of Mechanical Properties to Predict Collapse Pressure of UOE Pipe

Tsuru, E, Asahi, H, Doi, N, Murata, M, Nippon Steel, Japan

UOE Pipes for Ultra Deep Water Application: Analytical and FE Collapse Strength Prediction vs. Full Scale Tests of Thermally Treated Line Pipe

Liessem, A, Groß-Weege, J, Knauf, G, Zimmermann, S, Salzgitter Mannesmann Forschung, Germany

Buckling Behavior of API-X80 Linepipe

Kang, K B, Yoo, J Y, Ahn, S S, POSCO; Cho, W Y, Yoon, T Y, RIST, Korea

Evaluation of Strain Limit of Compressive Buckling by FE Analysis

Shitamoto, H, Sumitomo Metals Industries, Japan

UOE Pipes for Ultra Deep Water Application: Collapse Strength Capacity vs. Material Characteristics State-of-the Art

Bruschi, R, Torselletti, E, Vitali, L, Snamprogetti, Italy

UOE Pipes for Ultra Deep Water Application: Strength Capacity under Combined Loading Conditions for Thermally Treated Line Pipe Characteristics

Bruschi, R, Torselletti, E, Vitali, L, Snamprogetti, Italy

**The 5th (2007) ISOPE HPM Symposium:
Nanomaterials for Structural Application**

Lisbon, Portugal, July 1–6, 2007

**6. HPM Symp: Nanomaterials I:
Applications 1 (V. 4)**

Monday July 2 14:00 Opala I+II

Chair: Gruber, P L, Office of Naval Research, The Navy, USA
Co-Chair: Ying, J, Inst. of Bioeng. & Nanotech., Singapore

Introductory Remarks: Nanomaterials and Nanotechnology
Tsakalagos, T, Rutgers Univ, USA

Structural Aspects and Functional Properties of Nanostructures
Hahn, H, Inst. of Nanotechnology, Germany

Magnetic Properties of Nanomaterials
Niarchos, D, NCSR Demokritos, Greece

Functional Cluster-assembled Nanostructures for Applications to High Integration-density Devices
Perez, A, Mélinon, P, Dupuis, V, Masenelli, B, Bardotti, L, Prével, B, Tuailon-Combes, J, Bernstein, E, Tourmus, F, Wang, I, Hannour, A, Nicolas, D, Raufast, C, Univ Claude Bernard Lyon, France

Nanostructured Materials for Electronics: Science & Engineering
Kislov, V, Inst of Radioengineering & Electronics, RAS, Russia

Nanotechnology of Electronic Materials: Principles, Processes, and Applications
Logothetidis, S, Aristotle Univ of Thessaloniki, Greece

Application of Synchrotron Methods in Nanomaterials
Croft, M, Rutgers Univ, USA

Electron Microscopy: Does It Solve Nano-materials Problems?
De Hosson, J T M, Univ of Groningen, The Netherlands

**16. HPM Symp: Nanomaterials II:
Applications 2 (V. 4)**

Monday July 2 16:20 Opala I+II

Chair: Niarchos, D, NCSR "Demokritos," Greece
Co-Chair: Hahn, H, Inst of Nanotechnology Karlsruhe, Germany

Energy and Nanomaterials: A Young Materials Scientist's Perspective
Lou, J, Rice Univ, USA

Application of Nanomaterials in Biomedicine
Muhammed, M, KTH, Sweden

Nanostructured Steel?
Morris, J W, Univ of California-Berkeley, USA

Processing and Applications of Nanostructured Ceramics
Kear, B H, Rutgers Univ; Mukherjee, A, Univ of California, Davis, USA

Nanoporous Materials
Kanellopoulos, N, NCSR-Demokritos, Greece

Irradiation Effects on Materials at Nanoscale Level
Simos, N, Brookhaven National Laboratory, USA

The Role of Amorphous Structure on Corrosion Resistance
Ayer, R, Ling, S, ExxonMobil Research & Engineering, USA

**26. HPM Symp: Nanomaterials III:
Synthesis & Processing 1 (V. 4)**

Tuesday July 3 08:00 Opala I+II

Chair: Ellis-Behnke, R, MIT, USA
Co-Chair: Kisllov, V V, Russian Academy of Sciences, Russia

Nanostructure Processing of Advanced Ceramics
Ying, J Y, Inst of Bioengineering and Nanotechnology, Singapore/MIT, USA

Single Wall Carbon Nanotube Thin Films
Chhowalla, M, Rutgers Univ, USA

Nanostructured Films and Particles by Sputtering and Solution Chemistry
Chow, G M, National Univ of Singapore, Singapore

Net-shaping of Nanopowders into Structural and Functional Parts
Khasanov, O, Dvilis, E, Sokolov, V, Milovanova, T, Tomsk Polytechnic Univ, Russia

Fe-based Bulk Glassy Alloy Composite Containing *in situ* Formed α -(Fe,Co) and (Fe,Co)₂₃B₆ Microcrystalline Grains
Shen, B L, Men, H, Inoue, A, Tohoku Univ, Japan

Dispersing Inorganic Nanoparticles – Keystep for Utilization
Pilotek, S, Schär, S, Steingröver, K, Tabellion, F, Buhler Partec, Germany

Recent Advances in Design and Processing of Nanomaterials for Solid-state Thermal-to-electric Energy Conversion
Huber, T, Howard Univ, USA

**36. HPM Symp: Nanomaterials IV:
Nanobiotechnology (V. 4)**

Tuesday July 3 10:30 Opala I+II

Chair: Muhammed, M, KTH, Sweden
Co-Chair: Gogotsi, Y, Drexel, USA

The Intersection of Nanotechnology and Medicine
Ellis-Behnke, R, MIT, USA

Nanotechnology and Medicine at Crossroads
Tsakalakos, T, Rutgers Univ, USA

Using UV Light to Biofunctionalize Material Surfaces with Micrometer Resolution
Petersen, S B, Aalborg Univ, Denmark

Nanostructured Coatings to Organize Proteins
Palmer, R E, Univ of Birmingham, UK

Structural Nanomaterials for the Regeneration of Numerous Tissues
Webster, T J, Brown Univ, USA

Chemical Processing and Applications of Magnetic Nanoparticles and Nanorods
Kurihara, L K, Naval Research Laboratory, USA

Target Oriented Drug Delivery Systems for Medical Treatments
Kim, D K, Keele Univ, UK

**46. HPM Symp: Nanomaterials V:
Mechanical Properties (V. 4)**

Tuesday July 3 14:00 Opala I+II

Chair: Vasudevan, A K, Office of Naval Research, The Navy, USA
Co-Chair: Mukherjee, A K, Univ of California-Davis, USA

Mechanical Characterization of Micro/nano Materials and Structures

Kujawski, D, Ghantasala, M K, Western Michigan Univ, USA

Quantifying the Nanomechanics of Nanostructured Materials
Mann, A B, Rutgers Univ, USA

Continuum Nanomechanics
Aifantis, E, Aristotle Univ of Thessaloniki, Greece

**Mechanical Spectroscopy and Nanophase Materials a Two Case Study:
Al-Mg-Si Alloys Prepared by Severe Plastic Deformation and Mg Based
Hydrides for Hydrogen Storage**
Bonetti, E, Univ di Bologna, Italy

Deformation of Nanowires
Aifantis, K, Ecole des Mines de Paris, France

**Comparison of Deformation and Failure Regularities of Ultrafine
Grained Crystalline Materials and Amorphous Metallic Alloys at
Cryogenic Temperatures**
Tabachnikova, E D, Bengus, V Z, B. Verkin Inst for Low Temperature
Physics and Engineering, Ukraine

**Mechanisms and Strategies to Achieve Simultaneous Strength and
Ductility in Bulk Nanostructured Materials**
Wang, Y M, Lawrence Livermore National Laboratory, USA

**56. HPM Symposium: Nanomaterials VI:
Synthesis & Processing 2 (V. 4)**

Tuesday July 3 16:20 Opala I+II

Chair: Ovid'ko, I, Russian Academy of Sciences, Russia
Co-Chair: Kanellopoulos, N, NCSR "Demokritos", Greece

**Principles of Producing Bulk Nanostructured Materials with Unique
Properties by Severe Plastic Deformation Techniques**
Valiev, R, Ufa State Aviation Technical Univ, Russia

Composite Materials and Coatings Using Detonation Nanodiamond
Mochalin, V, Behler, K, Gurga, A, Gogotsi, Y, Drexel Univ, USA

Iron Nanomaterials Prepared by Electrodeposition
Trudeau, M, IREQ, Canada

Processing and Properties of Hard Nanocrystalline Coatings
Jankowski, A, TTU Texas, USA

New Superhard Nanomaterials-based High-melting Point Compounds
Andrievskiy, R A, Inst of Problems of Chemical Physics, RAS, Russia

**Microstructure and Mechanical Properties of Nano-Meso Hybrid
Materials Fabricated by Hot Roll Sintering Process**
Ameiyama, K, Ritsumeikan Univ, Japan

One-dimensional AlN Nanostructured Materials
Hu, Z, Nanjing Univ, China

**65. HPM Symposium: Nanomaterials VII:
Nanocoatings (V. 4)**

Wednesday July 4 08:00 Opala I+II

Chair: Jankowski, A, TTU Texas, USA
Co-Chair: Logothetidis, S, Aristotle Univ of Thessaloniki, Greece

**Ceramic Nanocoatings: Possible Applications for the Oil and Energy
Industry**
Meyer, F, Faber, S, Nonninger, R, ItN Nanovation AG, Germany

**Development of New Process for Deposition of Nanometallic Particles
on WC for Thermal Spraying**
Berget, J, Sallom, Z K, SINTEF Materials and Chemistry, Norway

Thin Hard-coated Components Fatigue Resistance: Numerical Models and Experimental Validation

Baragetti, S, Univ degli Studi di Bergamo, Italy

Nanostructured Coatings with Enhanced Properties for Gas Turbine Engine and for Gear Applications

Provenzano, V, National Inst of Standards and Technology, USA

Nanostructured Titanium Oxide Coating for Hydrometallurgical Application

Kim, G E, Perpetual Technologies, Canada

Shipboard Applications for Nanostructured Al₂O₃/13TiO₂ Plasma-sprayed Coatings

Rigney, R W, Brunhouse, Jr, A&A Company; B S, Kear B H, Rutgers Univ, USA

Residual Stress Distributions in Plasma Sprayed Nanostructured Ceramic Coatings

Shukla, V, Sadangi, R, Tsakalakos, T, Croft, M, Rutgers Univ; Zhong, Z, Brookhaven National laboratory; Rigney, R, Brunhouse, S, A&A Company, USA

**75. HPM Symposium: Nanomaterials VIII:
Nanocomposites (V. 4)**

Wednesday July 4 10:30 Opala I+II

Chair: De Hosson, J T M, Univ of Groningen, The Netherlands

Co-Chair: Chow, G M, National Univ of Singapore, Singapore

Processing and Characterization of Structural Nanoceramic Composites with Interesting Mechanical Properties

Mukherjee, A K, Jiang, D T, Hulbert, D, Thomson, K, Univ of California-Davis, USA

Nitride Based Ceramic Nanocomposites with Multifunctionality

Kusunose, T, Sekino, T, Niihara, K, Osaka Univ, Japan

Transparent Yttria-based Nanocomposites

Sadangi, R, Shukla, V, Kear, B H, Al Sharag, J, Rutgers Univ; Stefanik, T, Gentilman, R, Raytheon, USA

Nanocomposites of Transition Metal Dichalcogenides (Type WS₂) with C-based Phases

Cavalerio, A, Universidade de Coimbra, Portugal

Nanocomposite Porous Silicon Layers

Kleps, I, Miu, M, Ignat, T, Simion, M, IMT-Bucharest, Romania

Effect of Silica Fume Particles on the Mechanical Properties of High-performance Concrete

Nassif, H, Rutgers Univ, USA

Nanohybrid Thin Films of Highly Ordered TiO₂ Nanoparticle Arrays in PMMA by Diblock Copolymer Templating

Wang, J, National Univ of Singapore, Singapore

**85. HPM Symposium: Nanomaterials IX:
Characterization & Modeling (V. 4)**

Wednesday July 4 14:00 Opala I+II

Chair: Valiev, R, Ufa State Aviation Tech Univ, Russia

Co-Chair: Croft, M, Rutgers Univ, USA

Deformation and Fracture Mechanisms in Nanocrystalline Metals and Nanocomposite Ceramics

Ovid'ko, I A, Inst of Problems of Mechanical Engineering, RAS, Russia

Plastic Deformation of Nano-size Copper Specimens

Doyama, M, Kogure, Y, Nozaki, T, Teikyo Univ of Science and Technology, Japan

Yield Stress of Nanocrystalline Materials: Nanomechanics of Hall-Petch Relationship

Pande, C S, Naval Research Laboratory, USA

Discreteness of Nanostructures and Critical Sizes of Nanoclusters

Suzdalev, I, Maksimov, Y, Inst of Chemical Physics, RAS, Russia

In-situ TEM Study of the Characteristics in Nanometer-sized Alloy Particles

Lee, J G, Lee, J H, Korea Inst of Machinery & Materials, Korea; Mori, H, Osaka Univ, Japan

Transparent Conducting Oxides: from Materials to Applications

Kiriakidis, G, Univ of Crete and FORTH, Greece

Preparation, Characterization and Applications of Electroplated Composite Coatings

Lupu, N, R&D for Tech Phys, Romania

Strain Mapping of Fatigue Cracks in Aluminum Alloys: Transient and Environmental Effects

Fremy, F, ENS-Cachan, France; Sadangi, R, Shukla, V, Tsakalagos, T, Croft, M C, Rutgers Univ; Pao, P, Naval Research Laboratory; Vasudevan, A K, Office of Naval Research; Lee, E, Navair; Zhong, Z, Brookhaven National Laboratory, USA

**The 7th (2007) ISOPE
Ocean Mining (& Gas Hydrates) Symposium**
Lisbon, July 1–6, 2007

Cooperated by:

International Society of Offshore and Polar Engineers (ISOPE)
U.S. National Science Foundation (NSF)
Mining and Materials Processing Institute of Japan (MMIJ)
Korea Association for Deep Ocean Minerals Development (KADOM)
Korea Society of Ocean Engineers (KSOE, formerly KCORE)
National Institute of Oceanography (NIO, India)
Interoceanmetal Joint Organization (IOM, Poland)
Japan Society of Naval Architects and Ocean Engineers (JSNAOE)
China Ocean Mineral Resources R&D Association (COMRA)

51. OMS-2007 OCEAN MINING I (V. 1)

Tuesday July 3 14:00 Jade I

Chair: Liu, S, Central South Univ, China
Co-Chair: Stoyanova, V, Interoceanmetal Joint Organization, Poland

The 7th Ocean Mining Symposium: Introduction
Chung, J S, ISOPE, USA

**Deep Sea Scientific Drilling Vessel “CHIKYU” – for New Science at
Deeper Frontier of the Earth’s Interior**
Kyo, M, JAMSTEC, Japan

**The Dawning of Deep Sea Mining of Metallic Sulfides: The Geologic
Perspective**
Scott, S D, Univ of Toronto, Canada

**Establishment of the Environmental Baselines Within the IOM’s
Contact Area in Context of the Current Recommendations and
Requirements Created by the ISA**
Stoyanova, V, Interoceanmetal Joint Organization, Poland

Deep-ocean Mining Technology III: Developments
Chung, J S, ISOPE, USA

58. OMS-2007 OCEAN MINING II: DOW (V. 1)

Tuesday July 3 16:20 Jade II

Chair: Otsuka, K, Osaka Prefecture Univ, Osaka, Japan
Co-Chair: Ouchi, K, Ouchi Ocean Consultant, Japan

**Three Years Operation of Ocean Nutrient Enhancer TAKUMI in
Sagami Bay**
Ouchi, K, Ouchi Ocean Consultant, Japan

Strain Measurement on Riser Pipe of “TAKUMI”
Maeda, K, Takahashi, I, National Maritime Research Inst; Miyabe, H, IHI
Marine United; Masuda, S, JFE Soldec, Japan

**Study on Discharged Water from Ocean Nutrient Enhancer
“TAKUMI” Using Thermal Stratified Tank**
Ikegami, Y, Umeki, M, Bando, A, Sakurazawa, S, Saga Univ; Ouchi, K,
Ouchi Ocean Consultant, Japan

Ecological Footprint Accounting of “TAKUMI”
Otsuka, K, Osaka Prefecture Univ, Japan

**Hybrid Installation Method for the Construction of Deep Water
Intake System**
Jung, D H, Kim, H J, MOERI/KORDI; Park, H I, Korea Maritime Univ,
Korea

Deep Ocean Water in Taiwan: Water Quality and Future Utilization
Liu, T K, Yu, J L, Kao, R C, Hwang, H H, National Cheng Kung Univ,
Taiwan, China

68. OMS-2007 OCEAN MINING III: Gas Hydrates 1 (V. 1)
Wednesday July 4 08:00 Opala III

Chair: Komai, T, AIST, Tsukuba, Japan
Co-Chair: Kang, S P, KIER, Korea

An Experimental Investigation of Rheology of Condensate Oil/Tetrahydrofuran Hydrate Slurry
Yao, H Y, Li, Q P, CNOOC; Chen, G J, Gong, J, China Univ of Petroleum,
China

Compaction Behavior of Toyoura Sand during Methane Hydrate Dissociation
Aoki, K, Masui, A, Haneda, H, Ogata, Y, National Inst of AIST, Japan

Mechanical Properties of Sandy Sediment Containing Marine Gas Hydrate in Deep Sea off the Coast of Japan
Masui, A, Haneda, H, Ogata, Y, Aoki, K, National Inst of AIST, Japan

Application of Compliance Technique to Understanding of Stress-strain Relationship for Methane Hydrate Bearing Sediment
Miyazaki, K, Masui, A, Haneda, H, Ogata, Y, Aoki, K, National Inst of AIST, Japan

Simulation of Triaxial Compression Tests on Soil Samples Obtained from Seabed Ground in Deep Sea by Elasto-visco Plastic Constitutive Equation
Ogisako, E, Nishio, S, Denda, A, Shimizu Corp; Oka, F, Kimoto, S, Kyoto Univ, Japan

Estimation of Surface of Area of Methane Hydrate in Sediments
Nakayama, H, Univ of Tokyo; Ogasawara, K, AIST; Sato, T, Univ of Tokyo; Yamasaki, A, Kiyono, F, AIST, Japan

Seafloor Displacement Monitoring by Double Integral Technique Using Servo-accelerometer System
Tokoyama, T, Saito, H, Uchiyama, S, OYO Corp, Japan

78. OMS-2007 OCEAN MINING IV: Gas Hydrates 2 (V. 1)
Wednesday July 4 10:30 Opala III

Chair: Ohga, T, Hokkaido Univ, Japan
Co-Chair: Masui, A, AIST, Japan

Measurement of Thermal Properties for Methane Hydrate Sedimentary Layer – 2
Yamamoto, Y, Kawamura, T, Ohtake, M, Komai, T, Tsuji, T, Tsukada, Y, National Inst of AIST, Japan

Experimental Study on Steam Injection Method Using Methane Hydrate Core Samples
Kawamura, T, Ohtake, M, Sakamoto, Y, Yamamoto, Y, Haneda, H, Komai, T, Higuchi, S, National Inst of AIST, Japan

Experimental Study on the Liquid CO₂ Formation at the 30MPa
Jung, R T, Ryu, J W, Kang, S G, MOERI/KORDI, Korea

Effects of Pore Sizes on Formation Kinetics of Carbon Dioxide and Methane Hydrates in Porous Media
Kang, S P, Korea Inst of Energy Research, Korea

An Investigation for Dissociation Process of Methane Hydrate Using Inhibitor Injection

Nakatani, N, Osaka Prefecture Univ; Kuroda, K, Kurimoto Ltd; Okuno, T, Osaka Prefecture Univ, Japan; Masutani, S M, Hawaii Natural Energy Inst, USA

Experimental Study on Dissociation Behavior of Methane Hydrate by Hot-brine Injection

Ahn, T W, Lee, J H, Huh, D G, Kang, J M, Seoul National Univ, Korea

88. OMS-2007 OCEAN MINING V: Gas Hydrates 3 (V. 1)

Wednesday July 4 14:00 Opala III

Chair: Sato, T, Univ of Tokyo, Japan

Co-Chair: Kawamura, T, AIST, Japan

Measurement of Methane Hydrate Sediment Permeability Using Several Chemical Solutions as Inhibitors

Minagawa, H, Nishikawa, Y, Ikeda, I, Sakamoto, Y, Komai, T, Narita, H, National Inst of AIST, Japan

Assessment of the Absolute Permeability of Natural Methane Hydrate Sediments by Microfocus X-ray Computed Tomography

Jin, Y, Hayashi, J, Nagao, J, Suzuki, K, Minagawa, H, Ebinuma, T, Narita, H, National Inst of AIST, Japan

The Experimental Studies and Development Concept for the Offshore Natural Gas Hydrate

Li, Q P, Zeng, H Y, Dong, W L, Wang, Z J, CNOOC Resesarch Center; Feng, Z P, Tang, L G, Li, X S, Guangzhou Inst of Energy Conversion, CAS, China

Field Scale Simulation for the Effect of Relative Permeability on Dissociation and Gas Production Behavior during Depressurization Process of Methane Hydrate in Marine Sediments

Sakamoto, Y, Komai, T, Kawamura, T, Tenma, N, Yamaguchi, T, AIST, Japan

Permeability of Artificial Methane Hydrate Sediment in Radial Flow System

Shimokawara, M, Ohga, K, Hokkaido Univ; Sakamoto, Y, Komai, T, Yamaguchi, T, AIST, Japan

Observation of Self-preservation Effect of Methane and Ethane Hydrate

Nagao, J, Shimomura, N, Jin, Y, National Inst of AIST; Shima, W, Toyama Univ; Ebinuma, T, Narita, H, National Inst of AIST, Japan

Complex Structure Transition Induced by Swapping Process Occurring in Natural Gas Hydrate Layer

Seol, J W, Yeon, S H, Park, Y J, Kim, D Y, Lee, J W, Yoon, J H, Lee, H, KAIST, Korea

Experimental Study on Formation of Propane Gas Hydrate by Fluidized Bed Type Reactor

Arai, T, Kato, Y, Iwasaki, T, Kanda, N, Uchida, K, Mitsui Engineering & Shipbuilding, Japan

Preliminary Modeling of Chemosynthetic Ecosystem around Methane Seepage

Yamazaki, T, Takeuchi, R, National Inst of AIST; Monoe, D, Oomi, T, Chuden CTI; Nakata, K, Kotai Univ; Fukushima, T, Ocean Policy Research Foundation, Japan

98. OMS-2007 OCEAN MINING VI (V. 1)

Thursday July 5 08:00 Opala III

Chair: Hong, S, MOERI, Korea

Co-Chair: Yamazaki, T, Natl Inst of AIST, Japan

Identification of Factors and Conditions Potentially Responsible for the Buried Nodules Occurrence in the Eastern Clarion-Clipperton Zone (NE Pacific)

Kotlinski, R, Stoyanova, V, Interoceanmetal Joint Organization, Poland

Applicability Evaluation of the Surface Wave Exploration to the River Marine Geology Investigation

Fujimura, H, Tottori Univ; Tanaka, T, Hayashi, K, OYO Co; Kita, T, TK Land and Sea Investigation Office, Japan

Concentrated and Gastight Sampler of Deep-sea Microplankton

Huang, Z H, Li, L, Central South Univ; Jin, B, Zhejiang Univ; Liu, S J, Central South Univ, China

Economic Validation Analyses of Japan's Nodule, Crust, and Kuroko-type SMS Mining in 2006

Yamazaki, T, National Inst of AIST, Japan

Slip Control Simulation of Tracked Vehicle Based on Prediction of Instantaneous Rotation Center

Yeu, T K, Hong, S, Park, S J, Choi, J S, Kim, H W, Maritime and Ocean Engineering Research Inst, Korea

Design of a Hardware-in-the-loop Simulation (HILS) of Control and Monitoring System for Deep-seabed Manganese Nodule Miner

Park, S J, Yeu, T K, Hong, S, Choi, J S, Kim, H W, Maritime and Ocean Engineering Research Inst; Kim, S B, PKNU, Korea

108. OMS-2007 OCEAN MINING VII (V. 1)

Thursday July 5 10:30 Opala III

Chair: Yoon, C H, Korea Inst of Geoscience and Mineral Resources, Korea

Co-Chair: Li, L, Central South Univ, China

Metamodel-based Multidisciplinary Design Optimization of Ocean Mining Collector for Manganese Nodules

Lee, M U, Jung, J J, Yoo, J H, Lee, T H, Hanyang Univ; Hong, S, Choi, J S, Kim, H W, Maritime and Ocean Engineering Research Inst, Korea

Rich-crusts Miner's Simulation of Moving Ability on Seamount

Li, L, Central South Univ, China

Development of a Self-propelled Test Collector for Deep-seabed Manganese Nodules

Hong, S, Choi, J S, Kim, H W, Yeu, T K, Maritime and Ocean Engineering Research Inst; Lee, T H, Yoo, J H, Jung, J J, Hanyang Univ, Korea

Experimental Study of Manganese Separation from Solid-liquid Mixture Using Hydrocyclone

Park, Y C, Yoon, C H, Kim, Y J, Lee, D K, Kwon, S K, Korea Inst of Geoscience and Mineral Resources, Korea

A Study on the Solid-liquid Helical Flow in a Slim Hole Annulus

Kim, Y J, Yoon, C H, Park, Y C, Lee, D K, Kwon, S K, Korea Inst of Geoscience and Mineral Resources; Hwang, Y K, Woo, N S, Sungkyunkwan Univ, Korea

118. OMS-2007 OCEAN MINING VIII (V. 1)

Thursday July 5 14:00 Opala III

Chair: Sobota, J, Wroclaw Univ, Poland

Co-Chair: Sharma, R, National Inst of Oceanography, India

Development and Testing of Underwater Mining Systems for Long Term Operations Using Flexible Riser Concept

Deepark, C R, Ramji, S, Ramesh, N R, Babu, S M, Raju, A, Shajahan, M A, Atmanand, M A, National Inst of Ocean Technology, India

Three Dimensional Solid-liquid Flow Analysis for Design of Two-stage Lifting Pump

Yoon, C H, Kim, Y J, Park, Y C, Lee, D K, Kwon, S K, Korea Inst of Geoscience and Mineral Resources, Korea

COMRA's Research on Lifting Pump

Zou, W S, Central South Univ/Hunan Univ, China

Effect of Particle Size Distribution and Concentration on Flow Behaviour of Complex Slurries

Vlasak, P, Chara, Z, Inst of Hydrodynamics, Academy of Sciences, Czech Republic

Two-Phase Vertically Upward Transport of Fine Silica Sands in Dilute Polymer Solution: Drag Reduction and Effects of Sand Size and Concentration

Chung, J S, ISOPE; Lee, K, Kiewit Construction; Tischler, A, Aera Energy, USA

Research on the Movement of Solid Particles in Vertical Pipeline

Palarski, J, Plewa, F, Silesian Univ of Technology; Sobota, J, Wroclaw Univ; Strozik, G, Silesian Univ of Technology, Poland

Analysis of Elementary Head Loss by the Flow of Two Phase (Water-solid Particles) Mixtures in Vertical Pipeline on the Basis of Theoretical Model of Two Phase Mixtures Flow in Vertical Transportation Systems

Palarski, J, Plewa, F, Silesian Univ of Technology; Sobota, J, Wroclaw Univ; Strozik, G, Silesian Univ of Technology, Poland

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Classic Double €125 ___ Sgl / Dbl / ___ Twin**

Supplem Exec Extra €50 ___ Sgl / Dbl / ___ Twin**

“Supplementary Exec” is Executive Room with €50 extra charge.

* Rates include VAT of 5% (subject to change) and breakfast.

** Name of the person to share: _____

Advance Deposit and Methods of Payment. Please enclose **one (1)** night's non refundable deposit per room. **Cancellations** received within 1 week before arrival and no-shows will be assessed **the total number of** nights booked.

I am enclosing an international money order or check of € _____ in euro drawn on a EU bank, payable to **Corinthia Lisboa Hotel**.

I authorize a charge of \$ _____ to my credit card (*circle one*):

Visa MasterCard Discover Carte Blanche

Diner's Club American Express JCB

Card no.: _____ 3- or 4-digit code _____

Name on card: _____ Exp. Date: _____

Signature: _____ Date: _____, 2007

Copy, Complete, and Send This Form with One-Night's Deposit Directly to Corinthia Lisbon Hotel. as addressed above.
Reservation by either fax or e-mail only.

Reservation after **April 1** is subject to room availability.

In case Corinthia Hotel is fully booked before April 1, click on www.semlimite.pt to find other hotel choices available