

Annual Autumn Meeting of JASNAOE 2017 Program

Date: 27th (Mon.), 28th (Tue.) November, 2017

Place: Internatinal Conference Center Hiroshima

27th November (Monday)

Time	Title 【Conference Room 1】	Author(s) (○Speaker)
9:20 ~ 10:20	General Session (CFD1) Chair: Yasuyuki Toda (Osaka Univ.)	
9:20 ~ 9:40	Validation of Full-Scale Ship CFD Simulation by the Direct Comparison with Sea Trials Results	○Natsumi Murakami, Takanori Hino
9:40 ~ 10:00	Viscous CFD Analysis of Working Principle for Pre-Swirl Stator Fins Equipped on a Tanker	○Nobuaki SAKAMOTO, Kenji MOKUO, Masahiro TAMASHIMA
10:00 ~ 10:20	Forces, Ship Motions and Nominal Wake for KCS Ship Model in Regular Head Waves	○Ping-Chen Wu, Md Alfaz Hossain, Htike Aung Kyaw, Ayaka Matsumoto, Yasuyuki Toda
10:40 ~ 12:00	General Session (Ship Design) Chair: Yusuke Tahara (NMRI)	
10:40 ~ 11:00	Study on a Hull Optimization Using Swarm Intelligence	Tomoaki Egami, ○Akihito Hirayama
11:00 ~ 11:20	Development of a Small Stick-Held Dip Net Fishing Boat	○Toshihiko Kawashima, Hitoshi Nishimoto, Yasuaki Doi, Hidemi Mutsuda, Hideki Matsuda
11:20 ~ 11:40	Hull Improvement of a Fixed Shore Net Fishing Boat	○Toshihiko Kawashima, Hitoshi Nishimoto, Yasuaki Doi, Hidemi Mutsuda, Hideki Matsuda
11:40 ~ 12:00	Development of Automatic Hull Form Generation Method to Yield Specific Wake Field.	○Yasuo Ichinose, Yusuke Tahara
13:00 ~ 13:20	Poster Session : One-minute presentation	
13:20 ~ 14:40	General Session (Propulsion Performance 1) Chair: Chiharu Kawakita (NMRI)	
13:20 ~ 13:40	Performance confirmation and application of improved FBG pressure sensor	○Hiroshi Fukushima, Masahito Wakahara, Takeshi Kanai
13:40 ~ 14:00	Influence of Wave and Ship Motion on the Surface Pressure of the Duct-Type Energy Saving Device	○Kenichi Kume, Ryohei Fukasawa
14:00 ~ 14:20	The Effect of Microbubbles by Electrolysis in a Turbulent Boundary Layer	○Takamichi Hiroi, Tatsuya Hamada, Masahiko Makino, Chiharu Kawakita
14:20 ~ 14:40	Numerical Simulation of Flow around Ship with Air Lubrication System in Self Propulsion Condition	○Daijiro Arakawa, Hideki Kawashima, Chiharu Kawakita
15:00 ~ 17:00	General Session (Propeller and Propulsion Performance 2) Chair: Jun Ando (Kyushu Univ.), Daijiro Arakawa (NMRI)	
15:00 ~ 15:20	Energy Savings for Ship in Irregular Waves by Using a Nonlinear Model Predictive Control of Propeller Pitch and Electric Propulsion	Hidenari Makino, ○Yuichiro Hirano, Naoya Umeda, Toshiyuki Ohtsuka, Hidenori Sekiguchi, Masaki Fukazawa
15:20 ~ 15:40	An Experimental Study on Propeller Open Water Characteristics under Unsteady and Lateral Inflow Condition	○Yasushi Kitagawa, Yoshiaki Tsukada
15:40 ~ 16:00	Mathematical Model of Propeller and Rudder Forces while Propeller Boosting with Slow Speed and Large Drift Motion	Takune Yamamoto, ○Takahiro Ishikawa, Hironori Yasukawa, Yasuo Yoshimura
16:00 ~ 16:20	MAU4-30 Propeller Design Chart and Effect of Multiple Regression Analysis of Propeller Open Water Characteristics on the Design Chart	○Shosaburo Yamasaki, Yasuaki Ishihara, Hideyuki Fushimi
16:20 ~ 16:40	Hydrodynamic Study on Ship Hull, Propeller and Rudder System Performance Using CFD Code	○Takeaki Tamada, Jun Ando, Kazuhito Yamamoto
16:40 ~ 17:00	The Modeling of Wake Sheet in Simple Surface Panel Method for Numerical Analysis of Tidal Current Turbine Performance	○Takashi Kanemaru, Yoshitaka Ukon, Tatsuro Kudo, Koichiro Shiraishi, Hikaru Kamiirisa, Jun Ando
17:20 ~ 18:20	Special Lecture KANSEI Innovation for Nurturing Mental Wealth and Mono-zukuri (making things — manufacturing) ~ For realizing a “mentally enriched society” ~	Mazda Motor Corporation, Technical Fellow of Technical Research Center, Takahide Nouzawa

【Conference Room 2】

9:20 ~ 10:20 **General Session (Material and Structural Analysis 1)**

Chair: Yasumi Kawamura (YNU)

- 9:20 ~ 9:40 Development of Uncertainty Analysis Method for Stochastic Eigenvalue Problems
 9:40 ~ 10:00 Effect of Openings on Vibration Characteristics of Deck Panels in a Deep Tank
 10:00 ~ 10:20 Identification of Heat Source Shape Parameters for Laser Arc Hybrid Welding Simulation —Computation Welding Mechanic—

- Xi Chen, Yasumi Kawamura, Tetsuo Okada
 ○Akihiro Morooka, Yukitaka Yasuzawa
 Jean-David Caprace, Eduardo Vitor M. A. Gomes, Marcelo Igor L. De Souza, Victor Fachinotti, ○Shuichi Tsumura

10:40 ~ 12:00 **General Session (Fatigue and Fracture 1)**

Chair: Naoki Ohsawa (Osaka Univ.)

- 10:40 ~ 11:00 Study of the Effect of Peening Parameters and Materials Properties on Peening Response
 11:00 ~ 11:20 Evaluation of the local stress near the tip of a fast crack in finite element analyses
 11:20 ~ 11:40 A Basic Study of Crack Propagation and Arrest using Peridynamics
 11:40 ~ 12:00 A Basic Study of Elasto-Plastic Analysis for Steel employing Peridynamics

- Hector Ruiz, Naoki Osawa, Sherif Rashed
 ○Fuminori Yanagimoto, Kazuki Shibamura, Yuya Shirai, Yo Nishioka, Katsuyuki Suzuki
 ○Michiya Imachi, Satoyuki Tanaka
 ○Takaaki Takei, Michiya Imachi, Satoyuki Tanaka

13:20 ~ 15:00 **General Session (Fatigue and Fracture 2)**

Chair: Yosuke Anai (NMRI)

- 13:20 ~ 13:40 Study on the Effect of Crack Traction Force Integral on the Preciseness of Fracture Mechanics Analysis for Fatigue Cracks in Residual Stress Field
 13:40 ~ 14:00 Collapse Behavior of Rectangular Panel with Crack Damage under Tensile and Compressive Load
 14:00 ~ 14:20 A Study of Brittle Crack Propagation Criterion under Full-section Yield in Steels
 14:20 ~ 14:40 Fatigue Crack Growth Analysis of Heavy Thick Welded Joints
 14:40 ~ 15:00 Exposure Test Results of the Corrosion Resistant Steel for Upper Deck Plate of Crude Oil Tanker

- Naoki Osawa, Ramy Gadallah, Satoyuki Tanaka, ○Hiroki Kashima
 ○Ji Yu, Yu Setoyama, Satoyuki Tanaka, Chikahisa Murakami, Daisuke Yanagihara
 ○Yuki Nishizono, Tomoya Kawabata, Shuji Aihara
 ○Noboru Kiji, Koutaro Inose, Masanobu Toyoda
 ○Yusuke Miura, Shinji Sakashita, Manabu Izumi

15:20 ~ 17:00 **General Session (Fatigue and Fracture 3)**

Chair: Koji Gotoh (Kyushu Univ.)

- 15:20 ~ 15:40 Shape Evolution of Fatigue Surface Crack under In-plane Biaxial Cyclic Loading
 15:40 ~ 16:00 Measurement of Alternating Plastic Deformation Region Near a Crack Tip under Cyclic Loading by the Digital Image Correlation Method.
 16:00 ~ 16:20 Effects of Additional Welding at Weld Toe for Fatigue Strength of Welded Cruciform Joint
 16:20 ~ 16:40 A Study on the effect of the Stochastic Characteristics of Whipping Vibrations in a Container Carrier
 16:40 ~ 17:00 Experiments and Numerical Model to Evaluate Unstable Ductile Fracture in Offshore Pipelines

- Yosuke Anai, Toshio Niwa, Koji Gotoh
 ○Masanao Yamasaki, Koji Murakami, Koji Gotoh
 ○Toru Shiratsuchi, Masayoshi Inohara, Tatsuya Imai, Kenta Morinaga, Taichiro Shimoda, Seiichiro Tsutsumi, Genki Ohta, Hidekazu Murakawa
 ○Luis De Gracia, Naoki Osawa, Kazuhiro Iijima, Toichi Fukasawa
 ○Takahiro Hosoe, Kazuki Shibamura, Shuji Aihara, Masatoshi Tsukamoto, Hikaru Yamaguchi, Katsuyuki Suzuki

【Conference Room 3】

9:00 ~ 11:00 **Organized Session (OS1 The Forefront Activities of Earthquake and Tsunami Protection Measures)**

Organizer: Ei-ichi Kobayashi(Kobe Univ.) , Mitsuhiro Masuda (TUMST), Tomoya Inoue(JAMSTEC)

- 9:00 ~ 9:20 Seasonal variation of sediment resuspension and advection transport due to tsunami attack in Osaka Bay
 9:20 ~ 9:40 Research on Development of Tsunami Hazard Map of Mooring Vessels in Port and Mitigation Measures of Tsunami Disaster
 9:40 ~ 10:00 Prediction and Visualization for Tsunami Vortex toward Safer Ship Evacuation
 10:00 ~ 10:20 Experimental Study on Hydrodynamic Forces Acting on a Ship Moored Alongside a Quay Wall under Tsunami Attack
 10:20 ~ 10:40 A Fundamental Study on the Tsunami Protection Measures of the Moored Vessels at the Wharf Using the MPS Method Considered the Fender Influences
 10:40 ~ 11:00 Fundamental Study on Enlargement of Tsunami Disaster due to Submarine Landslides Associated with an Earthquake

- Masako Murayama, Satoshi Nakada, Mitsuru Hayashi, Eiichi Kobayashi, Shunichi Koshimura
 ○Koichi Masuda, Tomoki Ikoma, Hiroaki Eto, Masato Ohno, Daisuke Kaneko, Masatoshi Ishibashi
 ○Nakada Satoshi, Hayashi Mitsuru, Koshimura Shunich, Kobayashi Ei-ichi
 ○Shota Yoneda, Hirotsada Hashimoto, Ei-ichi Kobayashi
 ○Mitsuhiro Masuda, Kiyokazu Minami, Koichi Masuda
 ○Kazuki Murata, Toshikazu Ebisuzaki

11:00 ~ 12:00	General Session (Tsunami and Disaster Prevention) Chair: Hidemi Mutsuda (Hiroshima Univ.)	
11:00 ~ 11:20	A Study on Collision Hazards based on Motion Simulation between FSRU and Drifting Ship by Tsunami	○Sonoko Kawashima, Shunji Kato, Kazuhiro Yukawa, Katsuya Maeda, Hiroko Itoh, Junji Fukuto, Yasumi Kawamura
11:20 ~ 11:40	Study of the Breakwater at Ofunato Bay, with an Equal Emphasis on Disaster Prevention and Environmental Protection (III)	○Hiroyuki Oyama, Shunsuke Nishimura, Georgios Fytianos, Toru Sato
11:40 ~ 12:00	Fluid Structure Interactions Between Waves and Coastal Structures Using SWE-SPH	○Taiga Kanehira, Andi Ardianti, Hidemi Mutsuda, Yasuaki Doi
13:20 ~ 14:40	Organized Session (OS5 Japan-Korea International Collaboration – Research on ship-motion related hydrodynamics) Organizer : Masashi Kashiwagi (Osaka Univ.)	
13:20 ~ 13:40	Numerical Study on Unsteady Pressure Distribution and Wave Pattern of Ships in Head Waves	○Kyung-Kyu Yang, Masashi Kashiwagi
13:40 ~ 14:00	Numerical Study of Mean Drift Force and Added Resistance of Flexible Body	○Dong-Min Park, Jung-Hyun Kim, Yonghwan Kim
14:00 ~ 14:20	Experimental Comparison of Weather-Side and Lee-Side Sloshing Loads for LNG Carrier Cargo Tanks	○Yangjun Ahn, Sang-Yeob Kim, Jieung Kim, Jeoung-Kyu Lee, Yonghwan Kim
15:00 ~ 17:00	Organized Session (OS3 Review session of the Brazil-Japan Collaborative Program on Naval Architecture and Offshore Engineering) Organizer : Toru Sato (Univ. of Tokyo)	
15:00 ~ 15:20	Outline of the Brazil-Japan Collaborative Education Program on Naval Architecture and Offshore Engineering	○Toru Sato, Ryota Wada, Georgios Fytianos, Kazuo Nishimoto, Murilo Augusto Vaz, Celso Morooka, Armand Hideki Shinohara, Thiago Pontin Tancred, Tomoaki Ustunomiya, Tomoki Ikoma, Motohiko Murai, Kazuo Miura, Shuji Aihara, Masahiko Ozaki, Jean-David Caprace, Kazuhiro Aoyama, Edmilson dos Santos, Takuji Waseda, Takanori Hino, Toshihiro Maki, Rodolfo Goncalves, Katsuji Tanizawa, Junichi Man
15:20 ~ 15:40	Design of remote lecture system of the Brazil-Japan Collaborative Education Program on Naval Architecture and Offshore Engineering	○Ryota Wada, Georgios Fytianos, Toru Sato
15:40 ~ 16:00	Brazil-Japan Collaborative Program: —Students' Questionnaire—	○Georgios Fytianos, Ryota Wada, Toru Sato
【Conference Room 4】		
9:00 ~ 10:40	General Session (Floating Body and Response 1) Chair: Makoto Sueyoshi (Kyushu Univ.)	
9:00 ~ 9:20	Study on Structural Response of a Small-Scale Model Experiment of the Floating Structure for Offshore Wind Power Generation	Yoshikazu Tanaka, ○Jumpei Oda, Hidetsugu Iwashita, Yukitaka Yasuzawa, Makoto Sueyoshi
9:20 ~ 9:40	Experimental Study for Wave Induced Motion of Offshore Working Vessel with Lifting Slurry Pipe in Deepsea Mining Development	○Kei Ishida, Kazuhisa Otsubo, Hiroshi Sato, Seiya Kawano, Ryo Iwashita
9:40 ~ 10:00	A Study on Design and Safety Evaluation of Tower-Yoke Mooring Systems in the Use of FSRU	○Yuko Ishida, Shunji Kato, Kazuhiro Yukawa, Motohiko Murai
10:00 ~ 10:20	A Study on Hydrodynamic Interaction of Arrayed Point Absorber WECs with Control Force	○Haruyuki Ikemasu, Motohiko Murai, Qiao Li
10:20 ~ 10:40	Wave Loads on an Offshore Cylindrical Structure with a Column	○Takayuki Hirai, Shingo Yamanaka, Akira Sou, Yasunori Nihei
11:00 ~ 12:00	General Session (Underwater Technology and ROV) Chair: Kazuhiko Matsuoka (NIAS)	
11:00 ~ 11:20	Numerical Study on Underwater Behavior of Tether Cable and ROV Applying ANCF	Hiroyoshi Suzuki, ○Asako Kuwano, Hiroto Tomobe, Tomoya Inoue
11:20 ~ 11:40	Utilization and Possibility of Low Price ROV	○Kazuhiko MATSUOKA, Masanori SATO
11:40 ~ 12:00	Development of Disk Type Underwater Glider for Virtual Mooring - Research on Course Control by Tank Tests -	○Masahiko Nakamura, Hiroyuki Kajiwara, Joshiro Noda
13:20 ~ 14:20	General Session (FIV and VIV) Yoshiki Nishi (YNU)	
13:20 ~ 13:40	Experimental investigation of a flow-induced vibration energy converter with two mechanically coupled pivoted cylinders	○Kengo Fukuda, Hamid Arionfard, Yoshiki Nishi
13:40 ~ 14:00	CFD Evaluation and Experimental Comparison on Flow around Fixed Multi-column Configurations, Part III: Validation of Flow Around an Array of Four Cylinders	Pedro Paludetto da Silva de Paula Lopes, Guilherme Feitosa Rosetti, Nicoles Hepp Hannes, Maria Eduarda Felipe Chame, Shinichiro Hirabayashi, ○Hideyuki Suzuki, Rodolfo Trentin Gonçalves
14:00 ~ 14:20	VIV Behavior Analysis of Simple Catenary Riser	○Kaito Chibana, Shunji Kato, Kazuhiro Yukawa

15:00 ~ 16:40 **General Session (Floating Body and Response 2)**

Chair: Daisuke Terada (NDA)

- 15:00 ~ 15:20 Suggestion about Indexes of the Stability as Floating Body for a Rectangular Hull ○Yuji Doya, Tatsuo Sawada, Taisuke Morikawa
- 15:20 ~ 15:40 Three Dimensional Performance of Mobile Floating Breakwaters for Offshore Operation ○Masaki Ito, Motoyasu Kanazawa, Ryota Wada, Masahiko Ozaki
- 15:40 ~ 16:00 Various Factors that Related on the Safety of Vehicle Cargo in Large Ferry in the Ocean - A Consideration with Onboard Measured Data - ○Toru Takagaki, Kenji Sasa, Daisuke Terada
- 16:00 ~ 16:20 Nonlinear Effects on Ship Hydroelastic Responses in Large-amplitude Waves ○Ryuta Tanaka, Masashi Kashiwagi
- 16:20 ~ 16:40 On the Generation of Design Irregular Wave and the Measurement of Extreme Vertical Bending Moment of a Ship in Model Basin ○Takashi Mizui, Takashi Tsubogo, Toichi Fukasawa, Mai Hiranuma

【Conference Room 5】

9:00 ~ 11:00 **Organized Session (OS4 Integrated Engineering for Ocean Development)**

Organizer: Ken Takagi (Univ. of Tokyo), Ryota Wada (Univ. of Tokyo)

- 9:00 ~ 9:20 Research Activities of the Mooring Integrity Management Working Group ○Marcio Yamamoto, Ken Takagi, Ryota Wada
- 9:20 ~ 9:40 Research Activities of the Subsea Working Group at the RIO DE UT Endowed Laboratory ○Marcio Yamamoto, Ken Takagi, Ryota Wada, Kazuo Miura
- 9:40 ~ 10:00 A Study on Risk Assessment of Re-hydrate for Offshore Gas Pipeline Transport System ○Hiroaki Hajota, Marcio Yamamoto, Ryota Wada, Toru Sato, Chikashi Shuto
- 10:00 ~ 10:20 The Application and Functionalities of a Wet Christmas Tree Applied in Santos Basin Pre-Salt Cluster ○Cristiano Agostini, Marcio Yamamoto, Kazuo Miura
- 10:20 ~ 10:40 Attempt of anomaly detection of drilling torque by use of machine learning ○Tomoya Inoue
- 10:40 ~ 11:00 Analysis of the Effect of the Hull Shape on Piston-like Resonant Flow in Narrow Gap —Nonlinear Numerical Analysis by a Fully Lagrangian Particle Method— Cezar A. Bellezi, ○Liang-Yee Cheng, Makoto Arai

11:20 ~ 12:00 **General Session (Submarine Resources and Exploration 1)**

Chair: Susumu Tanaka (Hiroshima Univ.)

- 11:20 ~ 11:40 Simulation of Pore Water Flow in Soil Layer under Seabed and Fracture Behavior of Geological Layer by Water Pressure ○Mizuki Morishita, Kimihiro Toh, Masahiro Maeda, Takao Yoshikawa
- 11:40 ~ 12:00 Experimental Study on Air-Lift Pumping for Subsea Mining ○Satoru Takano, Sotaro Masanobu, Shigeo Kanada, Masao Ono, Hiroki Sasagawa

13:20 ~ 14:20 **General Session (Submarine Resources and Exploration 2)**

Chair: Hiroyoshi Suzuki (Osaka Univ.)

- 13:20 ~ 13:40 Model Experiments and Numerical Analysis of Stick-Slip Phenomena of Drill Pipe ○Sota Fukuda, Yuhi Nagaishi, Tokihiro Katsui, Tomoya Inoue, Hiroyoshi Suzuki
- 13:40 ~ 14:00 Steady Analysis on Shaping of Flexible Hose considering Internal Slurry Flow for Deepsea Mining ○Kazuhisa Otsubo
- 14:00 ~ 14:20 Application of Recurrent Neural Networks to WOB Estimation during Ultra-deep Ocean Drilling ○Tatsuya Kaneko, Ryota Wada, Masahiko Ozaki, Tomoya Inoue

14:40 ~ 16:40 **General Session (Sensing and Ocean Environment)**

Chair: Naoki Nakatani (Osaka Pref. Univ.), Yuji Sakuno (Hiroshima Univ.)

- 14:40 ~ 15:00 Estimation of Ship Velocity from Space-Borne SAR Images Yoshitaka Kimura, Shunichi Kusano, Daisuke Sango, ○Masanori Watagawa, Yoshinori Ishioka, Sho Shimizu
- 15:00 ~ 15:20 Estimation of short-time blue tide distribution in Tokyo Bay based on Himawari-8 data - A case study in 2017 ○Yuji Sakuno, Hiroto Higa, Hiroshi Kobayashi
- 15:20 ~ 15:40 Ship-based GNSS observation of meteotsunamis in the Goto-nada Sea off the western coast of Kyushu island, Japan Yoshihiro Niwa, ○Tomoyuki Hirobe, Takahiro Endoh, Hidee Tatehata, Iyan Eka Mulia, Takuji Waseda, Toshiyuki Hibiya
- 15:40 ~ 16:00 A robust mapping for underwater environment with 3D imaging sonar ○Koshikawa Tomohiro, Kato Shin, Arisumi Hitoshi
- 16:00 ~ 16:20 Measurement of underwater noise of aquaculture vessel around aquaculture cage ○Ryuzo Takahashi, Jun Miyoshi, Hiroyasu Mizoguchi
- 16:20 ~ 16:40 Construction of Objective Method of Extracting Environmental Factors Affecting Fishery Resource Dynamics Naoki Nakatani, ○Iori Masuda

28th November (Tuesday)

Time	Title	Author(s) (○Speaker)
【Conference Room 1】		
9:00 ~ 10:20	General Session (CFD2· Seakeeping Performance 1) Chair: Kazuki Yabushita (NDA)	
9:00 ~ 9:20	Flow Simulations around FLNG by CFD	○Keisuke Niwa, Takanori Hino
9:20 ~ 9:40	Effects of Turbulence Models on the CFD results of Ship Resistance and Wake	○Trieu Van Nguyen, He Van Ngo, Satowa Ibata, Yoshiho Ikeda
9:40 ~ 10:00	Performance of Air Circulation Tank to Reduce Frictional Resistance Drastically for a Very Wide and Shallow-Draft Ship (4th Report) —Scale effects on the ACT efficiency—	○Trieu Van Nguyen, Yoshiho Ikeda
10:00 ~ 10:20	Development of Practical Gap Covers to Reduce Air Resistance Acting on Deck Containers of a Ship	○Trieu Van Nguyen, Nobuyuki Shimizu, Akito Kinugawa, Yoshifumi Tai, Yoshiho Ikeda
10:40 ~ 12:00	General Session (Seakeeping Performance 2) Chair: Naoya Umeda (Osaka Univ.)	
10:40 ~ 11:00	Motion Response Analysis of a Cabin-suspended Ship Governed by a Velocity Feedback Control System	○Jialin Han, Daisuke Kitazawa, Takeshi Kinoshita, Taruo Maeda, Hiroshi Itakura
11:00 ~ 11:20	Development of Attitude Control System for Small Ships	○Sota Kanno, Jialin Han, Teruo Maeda, Daisuke Kitazawa
11:20 ~ 11:40	Experimental Study on Motions of a Two-dimensional Floating Body in Nonlinear Waves	○Hidetaka Houtani, Katsuji Tanizawa
11:40 ~ 12:00	On the static stability of plate side ship	○Kazuki Yabushita, Go Okahata
13:40 ~ 15:00	General Session (Propulsion Performance 3 and Seakeeping Performance 3) Chair: Hirotada Hashimoto (Kobe Univ.)	
13:40 ~ 14:00	Energy Consumption of a Sailing Quad-Maran Automated Vessel	○Chenfang Zhang, Shinichi Kitamura, Norikazu Masuda, Yasunori Nihei
14:00 ~ 14:20	A Method Determining Form Factor from Resistance Test Results	○Go Okahata, Kazuki Yabushita
14:20 ~ 14:40	Verification of Speed Trial Analysis Methods of Ship	○Arisa Ito, Hironori Yasukawa
14:40 ~ 15:00	Rudder Torque Performance of a Ship in Steady Turning and Its Prediction	○Takuto Yamamoto, Masaaki Sano, Hironori Yasukawa
15:20 ~ 17:00	General Session (Maneuvering and Seakeeping Performance 4) Chair: Toru Katayama (Osaka Pref. Univ.)	
15:20 ~ 15:40	Experimental Study on Longitudinal Motion of Planing Craft in Regular Head Waves	Toru Katayama, ○Makoto Katsube
15:40 ~ 16:00	Experimental Study on Bilge-keel Component of Roll Damping for Wide and Shallow Draught Vessel	Toru Katayama, ○Masaki Matsuoka
16:00 ~ 16:20	Maneuverability of a Ship in Heeled Condition	○Ryoya Sakuno, Hironori Yasukawa, Yasuo Yoshimura
16:20 ~ 16:40	Experimental Study on Seakeeping and Manoeuvring Performance of a Damaged Large Cruise Ship	○Hirotada Hashimoto, Akihiko Matsuda, Ayuka Goto, Kouki Kawamura, Hiroyasu Mizoguchi, Takahiro Munesue
16:40 ~ 17:00	Parameter Estimation for Maneuvering Motion Model of 4-DOF in Calm Water	○Daisuke Terada, Ryuzo Takahashi, Jun Miyoshi, Hiroyasu Mizoguchi
【Conference Room 2】		
9:00 ~ 10:20	General Session (Structural Strength 1) Chair: Kimihiro Toh (Kyushu Univ.)	
9:00 ~ 9:20	Numerical Simulation about Ultimate Strength of Container-ship Hull Girder under Dynamic Loading (Part 2)	Sho Kotajima, ○Yasumi Kawamura, Tetsuo Okada
9:20 ~ 9:40	A fundamental study on the dynamic response of hull girder of container ships 2nd report	○Yasuhira Yamada, Kyoko Kameya
9:40 ~ 10:00	Effect of side hull position on the Strength of the Cross-deck Structure of the Trimaran	○Masayuki Uemura, Hajime Kihara, Junya Dobashi, Sigeyuki Hibi
10:00 ~ 10:20	A Study for Influence of Inside or Outside Ring Stiffeners on General Buckling Strength of Ring Stiffened Cylindrical Shell under External Pressure	○Daisuke Shiomitsu, Naruyoshi Izumi, Kimihiro Toh, Takao Yoshikawa

10:40 ~ 12:00	General Session (Structural Strength 2) Chair: Yasuhira Yamada (NMRI)	
10:40 ~ 11:00	Comparison of Experiment and Numerical Calculation for Ultimate Strength of Box Girder Model under Four Point Bending	○Tatsuki Nemoto, Kimihiro Toh, Masahiro Maeda, Takao Yoshikawa
11:00 ~ 11:20	A Study on Vertical Bending Moment Act on High Speed Vessel	○Masayoshi Oka, Hiroyuki Koyama, Hiroshi Kawabe, Tsutomu Takimoto, Kenji Nakata, Takayuki Yagi, Takeshi Miyamoto
11:20 ~ 11:40	Hydroelastic Response Estimation of Ship under Severe Wave Condition by Using CFD and FEA Coupling Method	○Tomoki Takami, Masayoshi Oka, Kazuhiro Iijima
11:40 ~ 12:00	Cumulative Buckling Deformation of Stiffened Panel under Cyclic Loading - 2nd Report: FEM Based Detailed Simulation -	Yoshiteru Tanaka, ○Yusuke Komoriyama, Takahiro Ando, Yutaka Hashizume, Koji Morishita, Tomohiro Fujimoto, Akira Tatsumi, Masahiko Fujikubo
13:40 ~ 15:00	General Session (Material and Structural Analysis 2) Chair: Daisuke Yanagihara (Kyushu Univ.)	
13:40 ~ 14:00	Suggestion about the Hull Strength Evaluation Method for the Reinforced Knockdown Pontoon	○Yuji Doya, Tatsuo Sawada, Yuya Iseda
14:00 ~ 14:20	Ultimate Strength Analysis of Structures Considering Effect of Welding Distortions and Residual Stresses	○Kazuki Ikushima, Takaaki Harada, Masakazu Shibahara
14:20 ~ 14:40	Reduction of drift force acting on floating structure by modifying the shape above the still-water	○Kento Goda, Kazuhiro Iijima, Chong Ma, Masahiko Fujikubo
14:40 ~ 15:00	Study on the Liquefaction of Ore Particles in Bulk Carriers	○Shintaro Nakamura, Kimihiro Toh, Masahiro Maeda, Takao Yoshikawa
15:20 ~ 17:00	General Session (Sloshing) Chair: Hu Changhong (Kyushu Univ.)	
15:20 ~ 15:40	Visualization and Measurement of Liquid Vaporization with Sloshing in a Tank	○Takeru Ooe, Helvines Corazon Aquino, Akira Sou
15:40 ~ 16:00	Nonlinear Sloshing inside a Spherical LNG Tank	○Reina Hata, Makoto Arai, Liang-Yee Cheng
16:00 ~ 16:20	Measurements of Temperature and Pressure inside Liquid Hydrogen Vessel under Sloshing Conditions on Board of Training Ship "Fukae-Maru"	Minoru Takeda, ○Yuki Miyake, Kohei Suzuki, Kazuma Maekawa, Hiroaki Kumakura
16:20 ~ 16:40	Numerical Sloshing Simulation Base on Improved SPH Method	○Chong Ma, Takahiro Ando, Masayoshi Oka
16:40 ~ 17:00	A Study on the Influence of Sloshing with Partial Filled Tank on FLNG Motion in Waves	○Tsuoyoshi Kawahashi, Makoto Arai, Xin Wang, Liang-Yee Cheng, Kazuo Nishimoto, Akira Nakashima
【Conference Room 3】		
9:20 ~ 11:40	Organized Session (OS2 Experimental Study of Marine Renewable Energy Converters) Organizer : Motohiko Murai (YNU)	
9:20 ~ 9:40	Basic consideration on model test for confirmation of safety of marine energy converter	○Shunji Inoue
9:40 ~ 10:00	One consideration on scale effect of WEC mechanism in model test for confirmation of safety	○Shunji Inoue
10:00 ~ 10:20	Study on Power Conversion of Wave Energy Converters	○Yasutaka Imai, Shuichi Nagata, Tengen Murakami
10:20 ~ 10:40	Power Generation Experiment on Energy Conversion Performance in a Fixed OWC-Type Wave Energy Converter	○Tengen Murakami, Yasutaka Imai, Shuichi Nagata, Manabu Takao, Toshiaki Setoguchi
10:40 ~ 11:00	Water Tank Experiment on OWC Wave Energy Converter Using Double Perforated Caisson at Sakata Port, Yamagata Prefecture	○Tomoki Ikoma, Hiroaki Eto, Koichi Masuda, Shogo Shibuya
11:00 ~ 11:20	A Strategy of a Control Algorism for a Point Absorber Type WEC in Wave Conditions	○Qiao LI, Motohiko MURAI
11:20 ~ 11:40	Experimental Investigation of Wave Forces on Advanced Spar-type Floating Body Composed of Small and Large Cylinders	○Satoru Kimura, Nihei Yasunori
13:40 ~ 15:00	General Session (Ocean Energy 1) Chair: Tomoki Ikoma (Nihon Univ.)	
13:40 ~ 14:00	Fundamental Research on Development of Numerical Model for Pendulum Type Wave Power Generating Unit by the MPS Method	○Kazuki Murata, Chang-Kyu Rheem, Koki Maruyama, Hidetaka Kobayashi, Tomoki Ikoma
14:00 ~ 14:20	Electrolysis Characteristics and Electromagnetic Brake of Seawater MHD Power Generation Cell in High-Magnetic Field	Minoru Takeda, ○Soichiro Tanaka, Tomohiro Ogawa, Kazuma Maekawa, Makoto Aoki, Shinji Matsumoto
14:20 ~ 14:40	Computational Study on Helical-Type Seawater MHD Power Generator for Enlargement	Minoru Takeda, Kazuma Maekawa, ○Tomohiro Ogawa, Shinji Matsumoto, Souichiro Tanaka
14:40 ~ 15:00	Study of a Floating Wind Turbine with Horizontal Stabilizing Systems	○Makoto Sueyoshi, Hongzhong Zhu

15:20 ~ 16:20 **General Session (Ocean Energy 2)**

Chair: Tomoaki Utsunomiya (Kyushu Univ.)

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| 15:20 ~ 15:40 | An Experimental Study on effects of a VAT on Wave Excitations Acting on a Floating Body | ○Saika Iwamatsu, Tomoki Ikoma, Hiroaki Eto, Koichi Masuda, Yasunori Nihei |
| 15:40 ~ 16:00 | Effects of Shroud on Performance of Ocean Current Power Generation Turbine | ○Yukio Watanabe, Kensuke Usami |
| 16:00 ~ 16:20 | Preliminary Design of a 100 MW Ocean Thermal Energy Conversion (OTEC) Power Plant in Indonesia | ○Ristiyanto Adiputra, Tomoaki Utsunomiya |

【Conference Room 4】

9:00 ~ 10:00 **General Session (Shipping and Marine Transportation)**

Chair: Takeshi Shinoda (Kyushu Univ.)

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| 9:00 ~ 9:20 | Study on Creating a Direction of Upgrading Japanese Shipbuilding Business with Theory of Constraints | ○Hirofumi Doi, Takeshi Shinoda, Takashi Kudo |
| 9:20 ~ 9:40 | Validation of a Navigation Simulation through Comparisons with Actual Navigation Data | ○Michio Fujii, Hirotada Hashimoto, Yuuki Taniguchi |
| 9:40 ~ 10:00 | Application of Unit-load Transportation Simulation for Prospective Cargo Investigation | ○Hiroshi Matsukura, Takahiro Seta, Taro Aratani |

10:40 ~ 12:00 **General Session (Observation Data and Analysis)**

Chair: Kenji Sasa (Kobe Univ.)

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| 10:40 ~ 11:00 | The Comparison and Validation of Wind Waves at Rough Sea Voyages in Weather Routing | ○Taishi Yonemura, Kenji Sasa, Li-Feng Lu, Teruo Ohsawa |
| 11:00 ~ 11:20 | Weather Routing at an Initial Design Stage of a Fishing Vessel | ○Jun Miyoshi, Ryuzo Takahashi, Hiroyasu Mizoguchi, Katsuo Hasegawa, Akihiko Matsuda |
| 11:20 ~ 11:40 | Evaluation of the Rader Wave Analyzer in Actual Sea Condition | ○Etsuro Okuyama, Keichi Hirayama, Munehiko Minoura, Shintaro Miyoshi |
| 11:40 ~ 12:00 | Vector Kernel Regression Model for Shaft Power Analysis by On-board Monitoring Data | ○Munehiko Minoura, Taito Nanjo |

13:40 ~ 15:40 **General Session (Design and Optimization)**

Chair: Mitsuru Kitamura (Hiroshima Univ.), Kunihiro Hamada (Hiroshima Univ.)

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| 13:40 ~ 14:00 | Development of Platform for Maritime Industry to Make Architectural Decisions in Early Stage of R&D Project | ○Shinnosuke Wanaka, Kazuo Hiekata, Taiga Mitsuyuki, Tsubasa Ando, Koichiro Shiraishi, Haruki Yoshimoto, Bryan R. Moser |
| 14:00 ~ 14:20 | A study on the modularization and optimum arrangement of engine room considering series ships | Kunihiro Hamada, Gunawan, ○Kazetaro Ouchi, Takuo Deguchi, Hiroyuki Yamamoto, Yasufumi Morita |
| 14:20 ~ 14:40 | Application of Topology Optimization to Hull Structure Design | Mitsuru Kitamura, Shinichi Hirakawa, Akihiro Takezawa, ○Shingo Cho |
| 14:40 ~ 15:00 | Consistent Evaluation on Performance of Structural Strength, Propulsion and Added-resistance in Waves Considering Actual Sea State in Operation and Its Application to Hull Shape Optimization | ○Tomoki Takami, Yasuo Ichinose, Azumi Kaneko, Masayoshi Oka, Yusuke Tahara, Daisuke Arai, Takayoshi Masui, Naoki Mizutani |
| 15:00 ~ 15:20 | Study on Estimation of Propulsive Performance using Deep Learning and Ship Hull Form Optimization | ○Issei Habu, Tomoaki Egami |
| 15:20 ~ 15:40 | Development of Integrated Evaluation System on Propulsive Performance and Productivity of the Bow Shape | ○Yasuo Ichinose, Shuhei Fujimoto, Yusuke Tahara, Kohei Matsuo |

16:00 ~ 17:00 **General Session (Vibration and Noise)**

Chair: Akihiro Takezawa (Hiroshima Univ.)

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| 16:00 ~ 16:20 | Ship Noise Prediction by Using Neural Network | ○Masaru Hirakata, Ma Chong |
| 16:20 ~ 16:40 | Development of brief low-order vibration analysis method for ship superstructure | ○Tomoyuki Taniguchi, Masaru Hirakata |
| 16:40 ~ 17:00 | Optimization of structure and interior for noise in accommodation space in ship | Takumi Ozawa, ○Masaru Hirakata, Taiki Tsukada, Shohei Suda, Shinji Abe, Toshiyuki Takahashi |

【Conference Room 5】

- 9:00 ~ 11:00 **General Session (Ship Design and Development)**
Chair: Yoshitaka Furukawa (Kyushu Univ.), Mitsuhiro Masuda (TUMST)
- 9:00 ~ 9:20 Proposal of Autonomous Ship Design Method using Marine Traffic Simulator Kazuo Hiekata, Taiga Mitsuyuki, ○Kodai Ito
9:20 ~ 9:40 A Basic Study on Development of Automatic Ships (2nd Rep.) ○Satowa Ibata, Yoshiho Ikeda
9:40 ~ 10:00 Discussions on Utilization of LNG Fuel for Japanese Fishing Boat ○Keisuke Watanabe, Akihiko Matsuda, Masaki Minamizawa, Katsumi Kiyokawa, Naomi Yoshida, Izumi Seki
- 10:00 ~ 10:20 Proposal for a concept and energy cost calculation of subsea hydrogen production and storage system ○Kohdai Kaiho, Hiroaki Eto, Takujiro Miyamoto, Tomoki Ikoma, Koichi Masuda, Yoh Shikita
10:20 ~ 10:40 A Study on Sailing Hydrogen Generator -Design and Feasibility- ○Kazuyuki Ouchi, Joel Henzie
10:40 ~ 11:00 The New Hull Form with Twin Rudders Utilizing Duct Effects (6th Report) Sadatomo Kuribayashi, Takehiko Matsuzaka, Nobuhiro Asaumi, Toshifumi Takeda, Tamotsu Kurokawa, Masaki Fukazawa, Hiroyuki Yanaizumi, Masaki Yazawa, Takaki Kawano, Takao Nonaka, ○Noriyuki Sasaki
- 11:20 ~ 12:00 **General Session (Ocean Current)**
Chair: Shigeru Tabeta (Univ. of Tokyo)
- 11:20 ~ 11:40 Development of a Relocatable Ocean Model for Coastal Areas near Japan ○Tsubasa Kodaira, Takuji Waseda
11:40 ~ 12:00 Estimation of High-Frequency Tidal Current Velocity Fluctuation by Empirical Methods ○P. Garcia Novo, Yusaku Kyojuka, Muneo Tsuda
- 13:40 ~ 15:20 **General Session (Water Waves and Frictional Resistance)**
Chair: Munehiko Minoura (Osaka Univ.), Tokihiro Katsui (Kobe Univ.)
- 13:40 ~ 14:00 Effect of the viscous dissipation on the development of gravity currents ○Yosuke Sawano, Nobuhiro Baba
14:00 ~ 14:20 Group Velocity of Water Waves ○Hiroshi Isshiki
14:20 ~ 14:40 Conservation Formula of Energy and Momentum for 2D Water Waves in Uniform Flow in Finite Depth Water Channel ○Hiroshi Isshiki
14:40 ~ 15:00 Numerical modeling of frictional drag reduction with functional painting for ship hull ○Youhei Takagi, Lei Wang, Yasunori Okano, Takanori Hino, Kazuo Suzuki
15:00 ~ 15:20 A Procedure to Estimate the Frictional Resistance of Painted Surface Using a New Roughness Function Tokihiro Katsui, ○Kyosuke Kamada, Hisao Tanaka
- 16:00 ~ 16:40 **General Session (Marin Policy and Education)**
Chair: Hajime Kimura (Kyushu Univ.)
- 16:00 ~ 16:20 A Possibility of Using Multi-copters as a Nonlethal Anti-piracy Measure ○Keisuke Watanabe, Kyoko Takashima, Kazuho Mitsumura, Koshi Utsunomiya
16:20 ~ 16:40 A Development of Ship-Hull and Lines Generator System for Technical Drawing Exercises ○Koya Murata, Hajime Kimura