

The 2026 Meeting of the Marine Acoustics Society of Japan
PROGRAM

DAY 1 May 18

10:00~10:10 Opening

10:10~11:50 Oral Session I Chair : Kohei Hasegawa (Hokkaido University)

26- 1 Assessing the Applicability of Acoustic Telemetry for Hokkai Shrimp (*Pandalus latirostris*) in Eelgrass Beds

©Yanhui Zhu, Serina Kubo (Hokkaido Univ.), Keizo Ito (Fisheries Technology Institute, JFRA), Natsuo Okada, Yohei Kawamura (Hokkaido Univ.), Hiroyuki Matsumoto, Susumu Chiba (Tokyo Univ. of Agriculture), Aki Miyagi (AquaSound Inc.), Kenji Minami, Kazushi Miyashita (Hokkaido Univ.)

26- 2 Comparison of pelagic fish abundance measured by quantitative echosounder and omnidirectional sonar off the Pacific coast of Hokkaido

Shuto Watanabe (Hokkaido Univ., The Univ. of Tokyo), Ryuzo Takahashi (Nat. Res. Inst. Fish. Engin., FRA), Kohei Hasegawa, Naizheng Yan, Tohru Mukai (Hokkaido Univ.)

26- 3 Density estimation of fisheries resources in Jinhae Bay using hydro-acoustic

©Taegyem Hwang, Kyoungsoon Lee, Seokgwon Choi (Pukyong National Univ.)

26- 4 Observations of sound scattering layers using autonomous multi-frequency profiler off the Pacific coast of Southern Hokkaido

©Ikumi Miki, Tohru Mukai, Kohei Hasegawa, Naizheng Yan (Hokkaido Univ.)

26- 5 Vocal responses of Finless porpoises (*Neophocaena asiaeorientalis*) to Acoustic Deterrent Devices

©Sujung Kim, Kyoungsoon Lee, Jiyeon Kim (Pukyong National Univ.)

11:50~13:00 Lunch Break

13:00~13:30 General Assembly

13:30~13:50 Award Ceremony

13:50~14:00 Break

14:00~15:30 Poster Session Chair : Kazuyoshi Mori (National Defense Academy)

26- 6 Estimating the target strength of sardine (*Sardinops sagax*) as a function of swimming orientation

©Geunchang Park, Kyoungsoon Lee (Pukyong National Univ.)

26- 7 Density estimation of major fisheries resources in the West Sea of south Korea using acoustic and trawl survey

©Jayeon Choi, Dohun Kim, Jiyeon Moon, Kyoungsoon Lee (Pukyong National Univ.)

- 26- 8 Analysis of acoustic scattering characteristics and distribution of Pacific herring (*Clupea pallasii*) using multi-frequency methods
 ○Wooseok Oh (Pukyong National Univ.), Euna Yoon(Jeju National Univ.), Kyounghoon Lee (Pukyong National Univ.)
- 26-9 Acoustic scattering characteristics of live Japanese flying squid
 ◎Naizheng Yan (Hokkaido University), Euna Yoon(Jeju National University), Jeonghoon Lee, Hyungbeen Lee (National Institute of Fisheries Science, Republic of Korea), Kohei Hasegawa, Tohru Mukai (Hokkaido University)
- 26-10 Underwater Acoustic Positioning Based on Direct-Path Detection Using Reconstructed Wavefront Sets in Multipath Environments
 ◎Taiga Saito, Tadashi Ebihara, Atsushi Tsuchiya, Yuji Sato, Naoto Wakatsuki, Keiichi Zempo (Univ. Tsukuba), Tohru Yoshihara (Aomi Const. Co. Ltd)
- 26-11 Performance Evaluation of Biomimetic Ranging Signals Based on Finless Porpoise Clicks Using a Locally Optimal Detector (LOD)
 ◎Reza Prasetyawan, Hanako Ogasawara, Takanobu Kuroyama, Kazuyoshi Mori (National Defense Academy)
- 26-12 Basic Study on Underwater Acoustic Transmission of Water Depth Information for Three-Dimensional Positioning System
 ◎Emi Kitano, Tadashi Ebihara, Atsushi Tsuchiya, Yuji Sato, Takuya Aoki, Naoto Wakatsuki (Univ. Tsukuba) and Tohru Yoshihara (Aomi Const. Co. Ltd)
- 26-13 Evaluation of the accuracy of the underwater acoustic positioning based on time-of-arrivals of direct waves from multiple acoustic beacons
 ◎Taisei Kiriya, Tadashi Ebihara, Atsushi Tsuchiya, Yuji Sato, Takuya Aoki, Naoto Wakatsuki (Univ. Tsukuba), and Tohru Yoshihara (Aomi Construction Co., Ltd)
- 26-14 Three-dimensional underwater direction measurement using AFM sensitivity compensation signals
 ◎Haruto Aono, Ryo Toh (Chiba Institute of Technology)
- 26-15 Experimental Study on Suppression of Narrowband ISI by SOQPSK Modulation for Underwater Acoustic Communication
 ◎Hiroki Kiyomitsu, Ryo Toh(Chiba Institute of Technology)
- 26-16 Theoretical investigation of the forced diagonalization for multi-channel RLS-DFE.
 ○Mitsuyasu Deguchi, Yukihiko Kida (JAMSTEC)
- 26-17 Study on Optimal Frequency Resolution for Doppler Correction in Underwater Acoustic Communication Using Orthogonal Signal Division Multiplexing
 ◎Keisuke Nakamura, Tadashi Ebihara, Atsushi Tsuchiya, Yuji Sato, Takuya Aoki, Naoto Wakatsuki (Univ. Tsukuba), Tohru Yoshihara (Aomi Const. Co. Ltd)
- 26-18 Analysis of the Effects of Periodic Surface Fluctuations in a Wave-Generating Tank on the Impulse Response and Doppler Characteristics of a Communication Channel
 ◎Junnosuke Yoshita, Tadashi Ebihara, Naoto Wakatsuki, Yuka Maeda (Univ. Tsukuba)

26-19 Effects of Sound Speed Structure and Seafloor Topography on Acoustic Propagation in Shallow Water

©Haruki Kawasaki (IGSES, Kyushu Univ.), Naoki Hirose (RIAM, Kyushu Univ.)

15:30~15:40 Break

15:40~17:00 Oral Session II Chair : Takenobu Tsuchiya (Kanagawa University)

26-20 Variational approach to eigenray path calculation for real-ocean acoustic wave propagation

©Atsushi Tsuchiya, Tadashi Ebihara, Yuji Sato, Takuya Aoki, Naoto Wakatsuki (Univ. Tsukuba), Tohru Yoshihara (Aomi Const. Co., Ltd.)

26-21 A fundamental study on underwater acoustic beamforming using parabolic mirrors

© Kazuyoshi Chino, Tadashi Ebihara, Naoto Wakatsuki, Yuji Sato, Atsushi Tsuchiya (Univ. Tsukuba)

26-22 Quantification and visualization of earthquake motion in the source region of the central sea area

○Toshiaki Kikuchi (NDA)

26-23 Target position estimation by adding time-reversed sound fields of signals separated by independent component analysis processing

○Yoshiaki Tsurugaya (Sanyo PT), Toshiaki Kikuchi (NDA)

17:00~17:10 Break

17:10~18:10 Oral Session III Chair : Tadashi Ebihara (University of Tsukuba)

26-24 Suppression of multipath signal by improving phase tracking in Multi-Channel DFE

©Ayaka Yomoda, Yukihiro Kida, Mitsuyasu Deguchi, Yoshitaka Watanabe (JAMSTEC)

26-25 A fundamental study on the relationship between temporal variations in impulse responses and the sound speed distribution in underwater communication channels in extremely shallow waters

©Kodai Ono, Tadashi Ebihara, Naoto Wakatsuki, Atsushi Tsuchiya, Yuji Sato, Takuya Aoki (Univ. Tsukuba), Tohru Yoshihara (Aomi Const. Co. Ltd)

26-26 Development of Underwater Acoustic Modem Based on Code-Frequency-Time Division Multiple Access

○Chenggao Han, Xiaozhong Zhang, Takeshi Hashimoto (Sigcode, Inc.), Naoki Suehiro (Signal Design LLC)

19:00~21:00 Reception and Best Poster Award Ceremony

DAY 2 May 19

09:10~10:30 Oral Session IV Chair : Yuji Sato (University of Tsukuba)

- 26-27 Advancement of Gas Plume Measurement Method with Multiple Acoustic Sonar: SBP and MBES-WCD Analysis
○ Shin-ichiro Yokoyama (Kaiyo Engineering Co., Ltd), Takaya Shimono (Kaiyo engineering Co., Ltd, Nippon Kaiyo Co., Ltd), Chiharu Aoyama (Tokyo University of Marine Science and Technology), Akira Asada (The University of Tokyo)
- 26-28 High-Resolution Mapping of Crevasses with Waterfall Display method at the Umitaka Spur
○ Takaya Shimono (Kaiyo Engineering Co., Ltd, Nippon Kaiyo Co., Ltd), Shin-ichiro Yokoyama (Kaiyo Engineering Co., Ltd), Chiharu Aoyama (Tokyo University of Marine Science and Technology), Akira Asada (The University of Tokyo)
- 26-29 Fundamental study on an underwater acoustic positioning method utilizing a database of time-of-arrival signal group and reflected signals in multipath environment
◎ Naoto Imazu, Tadashi Ebihara, Atsushi Tsuchiya, Yuji Sato, Takuya Aoki, Naoto Wakatsuki (Tsukuba Univ.) and Tohru Yoshihara (Aomi Construction)
- 26-30 Basic study on underwater acoustic positioning using cross-power spectrum phase function and reconstructed wavefront set
○ Yuji Sato, Tadashi Ebihara, Atsushi Tsuchiya, Takuya Aoki, Naoto Wakatsuki (Univ. Tsukuba), and Tohru Yoshihara (Aomi Const. Co., Ltd.)

10:30~10:40 Break

10:40~11:40 Oral Session V Chair : Kazuo Amakasu (Tokyo University of Marine Science and Technology)

- 26-31 Echo waveform simulation of fish with swimbladders at short range
○ Kazuo Amakasu (TUMSAT), Masanori Ito, Yasushi Nishimori (Furuno Electric)
- 26-32 Uncertainty-Aware Acoustic Biomass Estimation of Whiteleg Shrimp Using Monte Carlo Simulation
○ Po-Yuk So, Jen-Ming Liu (NKUST), Tohru Mukai (Hokkaido Univ.), Kouichi Sawada (FRA), Naizheng Yan (Hokkaido Univ.)
- 26-33 Acoustic characteristics of Sakura shrimp (*Sergia lucens*) in water off Southwest of Taiwan
○ Jen-Ming Liu, Po-Yuk So, Hendra Setiazi (NKUST)

11:40~13:00 Lunch Break

13:00~14:00 Invited Lecture

Motion Control of Underwater Vehicles and Development of Fish Type Robot
Satoru Yamaguchi (Kyushu Univ.)

14:00~14:10 Break

14:10~15:30 Oral Session VI Chair : Yuka Mishima (Tokyo University of Marine Science and Technology)

26-34 Preliminary analysis results of radiation noise measurement data for bio-inspired robot propelled by artificial muscles.

○Kazuyoshi Mori, Takanobu Kuroyama, Hanako Ogasawara (National Defense Academy)

26-35 Background noise measurements using a battery-powered Unmanned Surface Vehicle as a platform

◎Eitaro Honda, Yuka Mishima† , Kazuo Amakasu, Hibiki Kubo (TUMSAT), Daizo Imai, Itaru Iwata, Toshihiro Asahara (Kaiyo Engineering Co., Ltd.), Takaaki Tatuta, Takahiro Ito, Risako Sakai (Nippon Kaiyo Co., Ltd.)

26-36 Bioacoustic Detection under Limited Training Data Using Contrastive Learning and Similarity-Based Retrieval

○Yujin Nakagawa (JAMSTEC, Waseda Univ.), Tomonari Akamatsu (Waseda Univ.), Hiroshi Ohizumi (Tokai Univ.), Yayoi Yoshida (Univ. of Human Environments), Mayu I. Ogawa, Daisuke Matsuoka (JAMSTEC)

26-37 Detection of low frequency whale calls using cabled ocean bottom seismic observation networks off the southern coast of Japan

○Ryoichi Iwase (JAMSTEC)

15:30~15:40 Break

15:40~16:40 Oral Session VII Chair : Mitsuyasu Deguchi (JAMSTEC)

26-38 Test Evaluation of Underwater Acoustic Communication Based on Direct Sequence Spread Spectrum Resistant to Doppler Shift

○Shingo Yoshizawa (Kitami Inst. of Tech.), Kazuhiro Shirokane (JMU Defense Systems), Takashi Saito (Tamagawa Electronics)

26-39 Investigation of the adaptive channel estimation and the channel replay using the underwater acoustic communication signal.

○Yukihiro Kida, Mitsuyasu Deguchi (JAMSTEC)

26-40 Sea Trial of Acoustic Communication and Positioning System Equipped on 8,000m-class AUV in Ultra Deep Sea

○Yoshitaka Watanabe, Ayaka Yomoda, Mitsuyasu Deguchi, Yukihiro Kida, Kazuya Iwashita, Takeshi Nakatani, and Takuya Shimura (JAMSTEC)

16:40~17:00 Best Paper Presentation Award Ceremony and Closing