

The 47th Symposium on Ultrasonic Electronics (USE 2026) Program

○ Speaker

* Applying to Young Scientists Award

11 November (Wed)

9:45-10:00 Opening Ceremony

10:00-10:45 Ultrasonic properties I

Chair: Maiko Hosoda (Tokyo Denki Univ.)

1J1-1 **Ultrasound scattering analysis of Melt-Crystallized Polymer Particles**

[[[S4537]]]

○Kazuto Tsuji, Tomohisa Norisuye (Kyoto Inst. of Tech.)

1J1-2* **Time-resolved imaging of lamb waves in valley topological phononic crystal waveguides**

[[[S4646]]]

○Atsushi Saito¹, Paul Hiroshi Otsuka¹, Daiki Hatanaka², Hiroshi Yamaguchi², Motonobu Tomoda³, Kenji Tsuruta⁴, Osamu Matsuda¹ (¹Hokkaido Univ., ²NTT BRL, ³Oita Univ., ⁴Okayama Univ.)

1J1-3* **Single-material topological phononic crystal with adsorption-induced self-switching wave propagation paths**

[[[S4635]]]

○Hiroki Okita¹, Kanta Adachi¹, Richard Wiltshaw², Nobutomo Nakamura¹, Hirosugu Ogi¹ (¹Univ. of Osaka, ²ICL)

10:45-11:35 Invited talk I

Chair: Takahiro Hayashi (Univ. of Osaka)

1I1 **Characterization and enhancement of adhesive bonding using ultrasound**

○Naoki Mori (Univ. of Osaka)

1I2 **Nondestructive evaluation using airborne ultrasonic arrays**

○Ayumu Osumi (Nihon Univ.)

11:35-13:00 Lunch Time

13:00-15:00 Poster Session

Chair: Masashi Suzuki (Univ. of Yamanashi)

1P1-1* **Relaxation Behavior Associated with Interlayer Interactions in Wet-on-Wet Multilayer Coatings**

[[[S4541]]]

○Hiroaki Nobuoka¹, Satoshi Ishida¹, Shujiro Mitani², Keiji Sakai² (¹Nippon Paint Corporate Solutions, ²Univ. of Tokyo)

1P1-2 **Measurement of Temporal Changes in Surface Tension and Viscosity by On-Substrate Droplet Horizontal Oscillation Method**

[[[S4551]]]

○Satoshi Ishida¹, Shujiro Mitani², Keiji Sakai² (¹Nippon Paint Corporate Solutions, ²Univ. of Tokyo)

1P1-3* **Local Bandgap Design and Reflection Phase Time for Rainbow Trapping in One-Dimensional Graded Phononic Crystals**

[[[S4465]]]

○Takuya Akisawa, Seiji Mizuno (Hokkaido Univ.)

1P1-4 **Frequency-Dependent Effective Stiffness and Topological Wave Phenomena in Locally Resonant Metamaterials**

[[[S4618]]]

○Seiji Mizuno (Hokkaido Univ.)

1P1-5* **Broadening sound absorption spectrum of multilayer membrane-type acoustic metamaterials via nonuniform air-layer arrangements**

[[[S4644]]]

○Wataru Hamaguchi, Yusuke Hata, Yuri Fukaya, Kenji Tsuruta (Okayama Univ.)

1P1-6* **Frequency-selective Localization by Spatially Distributed Topological Edge States**

[[[S4663]]]

○Hiroki Sakamoto, Takuya Akisawa, Seiji Mizuno (Hokkaido Univ.)

1P1-7 **The effect of the direct piezoelectric effect on *Hericium erinaceus***

[[[S4652]]]

○Hokuto Watanabe¹, Hirofumi Takahashi¹, Hajime Kobori², Naoto Tada² (¹Fuji ceramics, ²Iwade research institute of mycology)

1P1-8* **Optical Factors Affecting Apparent Attenuation of Brillouin Oscillations in Picosecond Ultrasonics**

[[[S4547]]]

○Kazuya Kohira¹, Atsushi Nishimura^{1,2}, Yoshiro Kabe², Hirosugu Ogi¹ (¹Univ. of Osaka, ²Skyworks Solutions, Inc.)

- 1P1-9*** Particle size distribution analysis of highly concentrated Bimodal charged particles using Dynamic Ultrasound Scattering method
[[[S4538]]]
○Manami Yamane, Norisuye Tomohisa (Kyoto Inst. of Tech.)
- 1P1-10** Estimation of internal quantum efficiency in GaN using the Laser Heterodyne Photothermal Displacement method considering in-plane thermal diffusion in thin films
[[[S4623]]]
○Yuta Hosokoshi¹, Yoshio Honda², Atsuhiko Fukuyama¹ (¹Univ. of Miyazaki, ²Nagoya Univ.)
- 1P1-11** Evaluation of Acoustic Attenuation in Freestanding SiO₂ Thin Films at Tens-of-GHz Frequencies Using Picosecond Ultrasonics
[[[S4505]]]
○Atsushi Nishimura^{1,2}, Yoshiro Kabe¹, Kazuya Kohira², Hirotugu Ogi² (¹Skyworks Solutions, Inc., ²Univ. of Osaka)
- 1P1-12*** Development of a Transformer-based mode identification method for resonant ultrasound spectroscopy
[[[S4592]]]
○Shota Nakamura¹, Kazuya Kohira¹, Hiroki Fukuda¹, Kazuhiro Kyotani², Hirotugu Ogi¹ (¹Univ. of Osaka, ²Insight K. K.)
- 1P2-1** Noncontact Airflow Velocity Measurement Using Ultrasonic Pulse Time-of-Flight with Laser Detection
[[[S4461]]]
○Manabu Takahashi¹, Shuta Noro¹, Ikuo Ihara² (¹NIT, Sendai College, ²Nagaoka Univ. of Tech.)
- 1P2-2** Preliminary study on radiation force balance measurements for airborne ultrasound at 40 kHz
[[[S4467]]]
○Takeyoshi Uchida, Ryusei Minamikawa, Hironobu Takahashi (AIST)
- 1P2-3*** FEM analysis of membrane thickness effects on ultrasound propagation
[[[S4474]]]
○Ryusei Minamikawa, Takeyoshi Uchida (AIST)
- 1P2-4*** Development of a Temperature Sensor Based on Wedge Wave Propagation
[[[S4485]]]
○Yuki Tajima, Iwao Matsuya (Tokyo Denki Univ.)
- 1P2-5*** Simultaneous measurement of thin-film thickness and sound velocity using acoustic resonance and pulse-echo methods
[[[S4486]]]
○Yohei Matsumoto, Iwao Matsuya (Tokyo Denki Univ.)
- 1P2-6** Experimental evaluation of signal amplitude enhancement achieved by SV-wave point-focusing EMATs over conventional EMATs
[[[S4496]]]
○Takashi Takishita^{1,2}, Kazuhiro Ashida³, Hirotugu Ogi² (¹KOBE STEEL, ²Univ. of Osaka, ³JAPEIC)
- 1P2-7*** Evaluation of Liquid Jet Generation Probability via Plasmon Resonance of Au Nanoparticles
[[[S4499]]]
○Akinori Ushizaki, Iwao Matsuya (Tokyo Denki Univ.)
- 1P2-8*** Black Box Variational Inference Instantaneous Velocity Using Dual-Chirp Plane Waves
[[[S4500]]]
○Satoshi Nakayama, Shohei Sato, Norio Tagawa (Tokyo Met Univ.)
- 1P2-9*** Real-Time Measurement of Vibration-Driven DNA Denaturation: Vibration Energy Dependence and Application to DNA Amplification
[[[S4518]]]
○Wang Yuchen, Tadzun Suzuki, Seiji Yoneda, Shigeo Yamaguchi (Kanagawa Univ.)
- 1P2-10*** Development of an Ultrasonic Thermometry Model Incorporating Thermal Contact Resistance for Measuring Internal Temperature in Solids
[[[S4531]]]
○Shun Horie, Kotaro Fukuda, Takeshi Hirasawa, Ikuo Ihara (Nagaoka Univ. of Tech.)
- 1P2-11*** Development of a Vibration Sensor Utilizing Evanescent Light and Minute Scattered Light from AU Nanoparticles and Thin Films
[[[S4553]]]
○Koki Ito, Iwao Matsuya (Tokyo Denki Univ.)
- 1P2-12*** Ultrasonic viscoelastic characterization technique for polymer dissolution monitoring
[[[S4574]]]
○Yuya Matsuoka¹, Naoki Mori¹, Yasuhito Suzuki² (¹Univ. of Osaka, ²Osaka Met. Univ.)
- 1P2-13*** Compressed sensing for defect visualization in thin metal plates by guided waves focusing on instantaneous phase components with amplitude correction
[[[S4579]]]
○Chikao Ishikawa¹, Kyosuke Shimizu², Youichi Ito¹, Ayumu Osumi¹ (¹Nihon Univ., ²Ehime Univ.)
- 1P2-14*** Shape measurement of objects in air using laser ultrasonic generation and microphone array reception
[[[S4585]]]
○Takumi Okada, Takahiro Hayashi, Naoki Mori (Univ. of Osaka)
- 1P2-15*** Numerical analysis of amplitude imaging of local thinning defects using a pulse inversion method with high-intensity airborne ultrasound
[[[S4595]]]
○Kentaro Gomi¹, Kyosuke Shimizu², Youichi Ito¹, Ayumu Osumi¹ (¹Nihon Univ., ²Ehime Univ.)

- 1P2-16*** **Dynamic viscoelastic imaging of cooked rice grains during compression using optical coherence tomography**
[[[S4690]]]
○Takumi Kanaya¹, Rikuta Uehara¹, Naoki Tano¹, Hiroyuki Nakagoshi², Marie Tabaru¹ (¹Science Tokyo, ²Ajinomoto)
- 1P3-1** **High Order Modes Thickness-Extensional Resonators Using Polarization-flipped Thin LiNbO₃ Double Layer and Acoustic Multilayer Reflector**
[[[S4460]]]
○Michio Kadota, Fuyuko Yamashita, Shuji Tanaka (Tohoku Univ.)
- 1P3-2*** **High-overtone mode polarization-inverted ScAlN/SiAlN film BAW resonators operating at 10 GHz**
[[[S4628]]]
○Hiroto Honda, Masashi Suzuki, Shoji Kakio (Univ. of Yamanashi)
- 1P3-3*** **Pseudo A₀-mode Lamb wave resonance properties on bonded structure with periodic voids**
[[[S4569]]]
○Junya Okabe, Masashi Suzuki, Shoji Kakio (Univ. of Yamanashi)
- 1P3-4*** **Adaptation of unidirectional transducer to piezoelectric boundary acoustic wave filter for gate drive circuit**
[[[S4598]]]
○Teppei Ota¹, Masashi Suzuki¹, Shoji Kakio¹, Shigeyoshi Goka² (¹Univ. of Yamanashi, ²Tokyo Met Univ.)
- 1P3-5*** **Analysis of leaky SAW propagation properties on LN/LT/LN layered structure**
[[[S4599]]]
○Yuki Kodama¹, Masashi Suzuki¹, Shoji Kakio¹, Yosuke Inase², Takanori Shirai² (¹Univ. of Yamanashi, ²Shincron)
- 1P3-6*** **Inverse-Problem-Based Input Waveform Design for High-Speed Gate Drive Signal Transmission Through Piezoelectric Filters**
[[[S4521]]]
○Tensei Ohyama, Shigeyoshi Goka (Tokyo Met Univ.)
- 1P3-7** **Equivalent Circuit Analysis of Nonlinear Signal Generation in DMS Filters**
[[[S4557]]]
○Muxiang Su, Zijiang Yang, Ting Wu, Jingfu Bao, Ken-ya Hashimoto (Univ. of Electronic Sci. and Tech. of China)
- 1P3-8** **Study of Nonlinear Signal Generation in S₀-Mode-like SAW Resonators**
[[[S4603]]]
○Qiongfeng Cai, Zijiang Yang, Wei Fan, Zhuolin Liu, Yao Shuai, Jingfu Bao, Ken-ya Hashimoto (Univ. of Electronic Sci. and Tech. of China)
- 1P3-9*** **Evaluation of lithium niobate transducers for the development of a multidirectional ultrasound device**
[[[S4450]]]
○Gota Kawaguchi, Toshihiro Yamamoto, Kotaro Fujishiro, Yuta Kurashina (Tokyo Univ. of A&T)
- 1P3-10*** **Posture-Adaptive Sensorless Contact Force Control for an Ultrasonic Motor-Driven Finger**
[[[S4689]]]
○Iori Miyata¹, Yanbo Wang¹, Tatsuki Sasamura², Shinichi Miyose³, Yoshitaka Oi³, Takeshi Morita¹ (¹Univ. of Tokyo, ²Lund Univ., ³NACHI-FUJIKOSHI)
- 1P3-11** **Design and characteristic analysis of a bootstrap-input voltage preamplifier for high-impedance matching of flextensional hydrophones**
[[[S4494]]]
○Jungsoon Kim¹, Moojoon Kim² (¹Tongmyong Univ., ²Pukyong Natl. Univ.)
- 1P3-12** **Electromagnetic and Mechanical Momentum in Piezoelectric Transducers**
[[[S4472]]]
○Michio Ohki (Natl. Defense Academy)
- 1P4-1*** **Temporal evolution of frequency spectra during the approach process of two differently sized bubbles**
[[[S4446]]]
○Riku Sonoyama, Ken Yamamoto (Kansai Univ.)
- 1P4-2*** **Static pressure dependence of ultrasonic pitting effect on microscale particles**
[[[S4447]]]
○Yuki Saho, Ken Yamamoto (Kansai Univ.)
- 1P4-3*** **Frequency dependence of the initial growth of cavitation bubbles under SDS addition and liquid surface stabilization**
[[[S4449]]]
○Taiki Ohashi¹, Hyang-Bok Lee^{1,2}, Yuki Yoshida¹, Ken Yamamoto¹ (¹Kansai Univ., ²Japan Women's Univ.)
- 1P4-4*** **Acceleration of sonoluminescence induction by the addition of Sonazoid®**
[[[S4455]]]
○Yuki Yoshida, Taiki Ohashi, Ken Yamamoto (Kansai Univ.)
- 1P4-5** **Reflected and transmitted waves at a moving density boundary -One-dimensional case-**
[[[S4462]]]
○Takao Tsuchiya (Doshisha Univ.)
- 1P4-6** **High-amplitude vibration characteristics of powder bed fusion printed metal for ultrasonic tools**
[[[S4471]]]
○Yuji Wada¹, Kentaro Nakamura² (¹Seikei Univ., ²Science Tokyo)
- 1P4-7*** **Ultrasonically-induced Amyloid Fibril Formation Under Intermittent Irradiation**
[[[S4495]]]
○Kanato Miyake, Tomoki Ota, Kichitaro Nakajima, Hirotugu Ogi (Univ. of Osaka)

- 1P4-8*** **Polymer Tactile Contact for Enhanced Tactile Sensation in Mid-air Ultrasound Haptics**
[[[S4501]]] ○Daisuke Mizushima, Rin Furuya (Aichi Inst. of Tech.)
- 1P4-9** **Ultrasonic-assisted fabrication of hierarchical Ti-supported ZnCoO_x nanofilm electrodes for long-term continuous and selective electrochemical nitrate-to-ammonia conversion**
[[[S4517]]] ○Hyeon-Bin Kim, So-Hui Jun, Tae-Oh Kim (Kumoh Natl. Inst. Tech.)
- 1P4-10*** **A Study of Piezoelectric Transducer without a Bolt Clamping at High Temperature**
[[[S4524]]] ○Hikaru Murakami, Takefumi Kanda, Daisuke Yamaguchi, Souta Mimura, Shuichi Wakimoto (Okayama Univ.)
- 1P4-11*** **Theoretical Analysis of Droplet Deformation by Acoustic Radiation Force for Quantitative Measurement of Viscoelastic Properties of Biomolecular Droplets**
[[[S4540]]] ○Yuta Suzuki, Hirotsugu Ogi, Kichitaro Nakajima (Univ. of Osaka)
- 1P4-12*** **Development of a compact 40 kHz transducer with an integrated horn structure and an attached vibrating plate**
[[[S4549]]] ○Hiroki Nishikawa, Hikaru Miura, Takuya Asami (Nihon Univ.)
- 1P4-13*** **Ultrasound-Induced Dissolution of Amyloid Fibrils and Quantitative Determination of Denatured Protein Solubility**
[[[S4556]]] ○Jingo Nishikawa, Tomoki Ota, Hirotsugu Ogi, Kichitaro Nakajima (Univ. of Osaka)
- 1P4-14*** **Elucidation of the Relationship Between Cavitation Bubble Temperature and Sonochemical Reactions**
[[[S4688]]] ○Rin Sawai, Aerfate Abulikemu, Kenji Okitsu (Osaka Met. Univ.)
- 1P4-15** **Synthesis and Battery Properties of Spherical Maghemite Particles via Alkaline Treatment of Iron Phosphate Prepared by Ultrasound Oxidation**
[[[S4699]]] ○Hirokazu Okawa¹, Eri Kaizu¹, Takahiro Osawa¹, Galya Tsermaa², Jie Ren¹, Takahiro Kato¹
(¹Akita Univ., ²Mongolian Univ. of Sci. & Tech.)
- 1P5-1*** **Investigation on accuracy of average speed-of-sound estimation technique by performing 2D and 3D numerical simulations**
[[[S4457]]] ○Yuki Asayama¹, Ryo Nagaoka¹, Masashi Mantani¹, Makoto Ohta^{2,3}, Hideyuki Hasegawa¹
(¹Univ. of Toyama, ²Tohoku Univ., ³ELyTmaX IRL3757, CNRS, Univ. Lyon, INSA Lyon, Centrale Lyon, Univ. Claude Bernard Lyon 1, Tohoku Univ.)
- 1P5-2*** **In silico evaluation of singular value decomposition based denoising filter for shear wave imaging**
[[[S4458]]] ○Kounosuke Ishihara, Ryo Nagaoka, Hideyuki Hasegawa (Univ. of Toyama)
- 1P5-3*** **Comparison of an estimation method of average speed-of-sound distribution using different metrics of receive beamforming**
[[[S4459]]] ○Masashi Mantani¹, Ryo Nagaoka¹, Yuki Asayama¹, Makoto Ohta^{2,3}, Hideyuki Hasegawa¹
(¹Univ. of Toyama, ²Tohoku Univ., ³ELyTmaX IRL3757, CNRS, Univ. Lyon, INSA Lyon, Centrale Lyon, Univ. Claude Bernard Lyon 1, Tohoku Univ.)
- 1P5-4** **Frequency-Dependent Changes of Piezoelectric and Ultrasound Signals in Cancellous Bone**
[[[S4463]]] ○Atsushi Hosokawa (Natl. Inst. Tech., Akashi Coll.)
- 1P5-5** **Characterization of Internal Cellular States in Cancer Spheroids Using High-Frequency Ultrasound Envelope Statistics**
[[[S4480]]] ○Kazuyo Ito¹, Kazuki Tamura², Keiko Hara¹, Yuta Iijima¹, Daisuke Yoshino¹
(¹Tokyo Univ. of A&T, ²Yokohama Natl. Univ.)
- 1P5-6** **Feasibility study of speed-of-sound measurement using a virtual central element toward quantitative assessment of liver fat content**
[[[S4497]]] ○Naotaka Nitta, Keigo Hikishima (AIST)
- 1P5-7*** **Assessment of collagen fiber alignment based on the anisotropy of acoustically induced polarization**
[[[S4514]]] ○Ai Suzuki¹, Yugo Oyamada¹, Taishi Goto¹, Kazuma Ito^{1,2}, Nobuto Kaitoh^{1,2}, Kenji Ikushima^{1,2}
(¹Tokyo Univ. of A&T, ²ASEMtech)
- 1P5-8** **Evaluation of frequency dependence of attenuation coefficient using broadband ultrasound for microstructural analysis**
[[[S4522]]] ○Miyu Nagaoka¹, Jonathan Mamou², Cameron Hoerig², Emilie Franceschini³, Shinnosuke Hirata^{1,4}, Kenji Yoshida^{1,4}, Tadashi Yamaguchi^{1,4} (¹Chiba Univ., ²Weill Cornell Medicine, ³Aix-Marseille Univ. / CNRS, ⁴Chiba Univ. Hosp.)

- 1P5-9*** **Tensile-stress dependence of acoustically induced electric polarization in bovine Achilles tendon**
[[[S4523]]] ○Taishi Goto¹, Takafumi Tateno¹, Ai Suzuki¹, Nobuto Kaitoh^{1,2}, Kenji Ikushima^{1,2} (¹Tokyo Univ. of A&T, ²ASEMtech)
- 1P5-10*** **Radiofrequency noise reduction for continuous ultrasound monitoring during hyperthermia**
[[[S4526]]] ○Ayumu Hasegawa¹, Masaaki Omura¹, Michio Takeuchi², Tsuyoshi Takanaka³, Shangce Gao¹, Hideyuki Hasegawa¹
(¹Univ. of Toyama, ²Tateyama Kagaku, ³Kouseiren Takaoka Hosp.)
- 1P5-11*** **Experimental-background synthetic labeling for non-speckle segmentation in blood flow echo**
[[[S4527]]] ○Ryu Igarashi¹, Masaaki Omura¹, Kunimasa Yagi², Gao Shangce¹, Hideyuki Hasegawa¹
(¹Univ. of Toyama, ²Kanazawa Med. Univ.)
- 1P5-12*** **Deep learning-based image restoration for high-frequency contrast-enhanced ultrasound images**
[[[S4528]]] ○Yusuke Taguchi¹, Masaaki Omura¹, Ariunbuyan Sukhbaatar², Tetsuya Kodama², Shangce Gao¹, Hideyuki Hasegawa¹
(¹Univ. of Toyama, ²Tohoku Univ.)
- 1P5-13*** **Changes in Acoustic Envelope Statistic Associated with HIFU-Induced Thermal Coagulation**
[[[S4530]]] ○Tomoki Sueda¹, Shohei Mori¹, Shin Yoshizawa^{1,2} (¹Tohoku Univ., ²SONIRE Therapeutics)
- 1P5-14*** **Evaluation of the Shear-Rate Dependence of Red Blood Cell Aggregation Using Amplitude Envelope and Backscatter Coefficient**
[[[S4534]]] ○Shoya Sakaguchi¹, Emilie Franceschini², Shinnosuke Hirata^{1,3}, Kenji Yoshida^{1,3}, Tadashi Yamaguchi^{1,3}
(¹Chiba Univ., ²Aix-Marseille Univ., ³Chiba Univ. Hosp.)
- 1P5-15*** **Mechanism of enhanced bubble detection sensitivity via superimposing pulsed HIFU onto an imaging pulse**
[[[S4535]]] ○Taisei Suwa¹, Shohei Mori¹, Shin Yoshizawa^{1,2} (¹Tohoku Univ., ²SONIRE Therapeutics)
- 1P5-16*** **Induction of Periodic Nuclear Deformation by Acoustic-Radiation-Force Microscopy and Its Effects on Nucleocytoplasmic Transport**
[[[S4536]]] ○Taketo Sato, Hirofumi Shimizu, Hirotsugu Ogi, Natsumi Fujiwara (Univ. of Osaka)
- 1P5-17** **Development of a numerical simulation environment for stenosis severity estimation based on blood flow velocity**
[[[S4543]]] Shunsuke Nozaka¹, Ryo Nagaoka¹, Masaaki Omura¹, Kozue Saito², ○Hideyuki Hasegawa¹
(¹Univ. of Toyama, ²Nara Med Univ.)
- 1P6-1** **Improvement of Azimuth Estimation Accuracy for Underwater Positioning Using a Bi-concave Acoustic Lens**
[[[S4562]]] ○Yuji Sato, Tadashi Ebihara, Kazuyoshi Chino, Atsushi Tsuchiya, Takuya Aoki, Naoto Wakatsuki (Univ. of Tsukuba)
- 1P6-2** **Multi-channel Fractionally-Spaced RLS-DFE with Block-Diagonalized Covariance Matrix**
[[[S4509]]] ○Mitsuyasu Deguchi, Yukihiro Kida (JAMSTEC)
- 1P6-3** **Automated Identification of Gadus macrocephalus Acoustic Signals in Long-Term Monitoring Data Using a Hybrid Model**
[[[S4442]]] ○Bum-Kyu Kim¹, Sungho Cho^{1,2}, Sunhyo Kim¹, Hansoo Kim^{1,2}, Donhyug Kang¹, Mira Kim¹, Yonghwa Choi¹, Seung-Uk Im¹, Na-Yeong Kim^{1,2} (¹KIOST, ²UST)
- 1P6-4*** **Effect of Doppler spreads on communication quality of orthogonal signal division multiplexing in wave tank experiments**
[[[S4451]]] ○Junnosuke Yoshita, Tadashi Ebihara, Naoto Wakatsuki, Atsushi Tsuchiya (Univ. of Tsukuba)
- 1P6-5** **STFT-informed Time-FiLM algorithm for distortion compensation and transmission performance enhancement of BPSK signals in underwater multipath channels**
[[[S4468]]] ○Jihyun Park (Pukyong Natl. Univ.)
- 1P6-6*** **Performance Evaluation of a Visible-Light Laser Hydrophone in a Bubble Environment**
[[[S4512]]] ○Rin Furuya, Norio Tsuda, Daisuke Mizushima (Aichi Inst. of Tech.)
- 1P6-7*** **Signal detection using correlation peak selection for multichannel underwater acoustic communication in multipath reflection environments**
[[[S4714]]] ○Emi Kitano, Tadashi Ebihara, Atsushi Tsuchiya, Yuji Sato, Takuya Aoki, Naoto Wakatsuki (Univ. of Tsukuba)
- 1P6-8** **Electrical Impedance Monitoring for Self-Heating Assessment in MHz Immersion Ultrasonic Transducers**
[[[S4567]]] ○Satrio Tegas Wicaksono, Takanobu Kuroyama, Hanako Ogasawara, Kazuyoshi Mori (Natl. Defense Academy)

1P6-9* Numerical simulation of effects of fish flesh on echoes from fish school
[[[S4607]]] ○Ryusuke Miyamoto, Seiji Akiyama (Tokyo Univ. Marine Sci. Tech.)

1P6-10* Robust range estimation in machine learning-based matched-field processing under array tilt using waveguide-informed data augmentation
[[[S4651]]] ○Soyeon Park¹, Yongsung Park², Gihoon Byun¹
(¹Korea Maritime & Ocean Univ., ²Woods Hole Oceanographic Institution)

15:15-16:30 Measurement techniques I Biomedical ultrasound I
Chair: Kenji Yoshida (Chiba Univ.)

1J2-1* Simulation of focused sound fields radiated by a Halton-sequence-based airborne ultrasound array
[[[S4578]]] ○Takuto Yoshizawa¹, Kyosuke Shimizu², Youichi Ito¹, Ayumu Osumi¹ (¹Nihon Univ., ²Ehime Univ.)

1J2-2 Optimization of Excitation Laser Beam Profiles for Laser Ultrasonic Microscopy
[[[S4508]]] ○Kazuki Tamura (Yokohama Natl. Univ.)

1J2-3* Underwater Surface Profiling Using Laser-Generated Ultrasound and Receive Beamforming
[[[S4575]]] ○Fumiya Hamada¹, Wakana Matsumoto¹, Takahiro Hayashi¹, Naoki Mori¹, Francesco Simonetti²
(¹Univ. of Osaka, ²Univ. of Cincinnati)

1J2-4* Quantitative reconstruction of acoustic nonlinearity parameter distribution from difference-frequency ultrasound using deep learning
[[[S4502]]] ○Peixian Zhu, Tamaki Nishioka, Hideyuki Nomura (Univ. of Electro-Comm.)

1J2-5* Phase-coherence-based estimation of probe shape and speed of sound for improved imaging accuracy with flexible ultrasound probes
[[[S4661]]] ○Sena Sakai¹, Takumi Noda¹, Ryoma Shoji¹, Takashi Azuma², Kohji Masuda¹ (¹Tokyo Univ. of A&T, ²Lily MedTech)

16:30-17:15 High power ultrasound I
Chair: Hirokazu Okawa (Akita Univ.)

1J3-1* Acoustic Pressure Stabilization for High-Frequency Ultrasound Focusing by Modifying Electrical Connection Methods of Lithium Niobate
[[[S4483]]] ○Hiro Tsuchiya, Shun Koda, Lisa Mitsuda, Yuta Kurashina (Tokyo Univ. of A&T)

1J3-2* Imaging TRPA1-mediated Ca²⁺ Responses to Ultrasound Stimulation in Three-dimensional Cellular Tissues
[[[S4640]]] ○Lisa Mitsuda¹, Shun Koda¹, Taishi Kotsuka¹, Shigenori Miura², Yuta Kurashina¹
(¹Tokyo Univ. of A&T, ²Hiroshima Univ.)

1J3-3* Effect of gas mixture on physicochemical property of cavitation bubble
[[[S4589]]] ○Aerfate Abulikemu, Kenji Okitsu (Osaka Met. Univ.)

17:30-18:15 Steering Committee Meeting

12 November (Thu)

9:00-10:00 Ultrasonic properties II Measurement techniques II
Chair: Taichi Hirano (Meiji Univ.)

2E1-1 Photoacoustic Signals Enhancement Using Transient Absorption to Improve Detection Sensitivity for Non- or Less-Fluorescent Substances in Liquid Solutions.
[[[S4476]]] ○Akira Harata, Fumito Okamura, Ryoki Tsukuda, Miki Isoda (Kyushu Univ.)

2E1-2* Morphology Observation, Material Characterization, and Performance Analysis of PbZr_xTi_{1-x}O₃ (PZT) Ultrasonic Sensing Chips
[[[S4453]]] ○Ding-Heng Hsieh¹, Makiko Kobayashi², Yu-Tzu Chou¹, Hsin Chen¹, Wei Chun Chen¹, Jing-Jenn Lin¹, Ching-Chi Chen³, Hsiang Chen¹ (¹Natl. Chi Nan Univ., ²Kumamoto Univ., ³Natl. Taipei Univ. of Tech.)

- 2E1-3** **Advancing Scanning Acoustic Microscopy by ML-based Super Resolution Approaches**
 [[S4437]] Raphael Wilhelmer¹, Tatjana Djuric-Rissner², ○Roland Brunner¹
 (¹Materials Center Leoben Forschung GmbH, ²PVA TePla Analytical Systems GmbH)
- 2E1-4** **Strain measurement using resonance frequency shifts induced by polarization relaxation in an electrodeless quartz resonator**
 [[S4593]] ○Motoyuki Hamana¹, Hanano Matsubara¹, Lianjie Zhou¹, Motoharu Haga^{1,2}, Hirotsugu Ogi¹ (¹Univ. of Osaka, ²Daicel)
- 10:00-11:00** **Piezoelectric devices I High power ultrasound II**
Chair: Subaru Kudo (Ishinomaki Senshu Univ.)
- 2E2-1*** **Modeling and Study of Dispersion Characteristics of Transverse Modes in Thin-Film SAW Resonators with Slanted IDTs**
 [[S4546]] ○Jun Sekimoto, Yuya Hiramatsu, Ryo Nakagawa, Rei Goto (Skyworks Solutions Inc.)
- 2E2-2** **Study of Third Harmonics Caused by Self-Mixing of Modulated Signals in SAW Devices Exhibiting Anomalous Power Law**
 [[S4580]] ○Viateur Irigore, Jingfu Bao, Ken-ya Hashimoto (Univ. of Electronic Sci. and Tech. of China)
- 2E2-3** **Non-monotonic Acoustic Power Dependence of Amyloid Fibril Formation Under Ultrasonic Fields**
 [[S4484]] ○Tomoki Ota, Kotaro Harada, Kichitaro Nakajima, Hirotsugu Ogi (Univ. of Osaka)
- 2E2-4*** **Investigation of droplet stability in ultrasonic levitation through coupled solutions of wave-equations and fluid dynamics**
 [[S4464]] ○Zahra Al Jamii¹, Yuji Wada², Kentaro Nakamura¹ (¹Science Tokyo, ²Seikei Univ.)
- 11:00-11:50** **Plenary Talk I**
Chair: Naoto Wakatsuki (Univ. of Tsukuba)
- 2PL** **Measurement of Acoustic Pressure with Hydrophones**
 ○Keith Wear (Stanford Univ.)
- 11:50-13:15** **Lunch Time**
- 13:15-15:15** **Poster Session**
Chair: Kazuyoshi Mori (National Defense Academy of Japan)
- 2P1-1** **Viscosity measurement in large space by Oscillatory EMS method**
 [[S4617]] ○Maiko Hosoda¹, Yoshikazu Yamakawa², Keiji Sakai³ (¹Tokyo Denki Univ., ²Triple-Eye, ³Univ. of Tokyo)
- 2P1-2*** **Generation and detection of GHz transverse acoustic waves with aluminum diffraction gratings by picosecond light pulses**
 [[S4668]] ○Yoji Sakai, Osamu Matsuda (Hokkaido Univ.)
- 2P1-3** **Dynamics of anisotropic submicron silica particles characterized by the dynamic ultrasound scattering method**
 [[S4702]] ○Mayuko Hirano, Mayu Hiromoto, Manami Yamane, Tomohisa Norisuye (Kyoto Inst. of Tech.)
- 2P1-4*** **Observation of Raman-Nath Diffracted Light Using a Hydrothermally Deposited KNbO₃ Piezoelectric Transducer**
 [[S4722]] ○Ritsu Fujii¹, Zenong Wu¹, Yuki Harada^{2,3}, Mutsuo Ishikawa⁴, Daisuke Koyama¹
 (¹Doshisha Univ., ²Univ. of Yamanashi, ³ESPCI Paris-PSL, ⁴Toin Univ. of Yokohama)
- 2P1-5*** **Non contact velocity measurements of soft tissue by light scattering**
 [[S4730]] ○Shun Kawatani, Yohei Sasaki, Mami Matsukawa (Doshisha Univ.)
- 2P1-6*** **UV Laser Micromachining of Hydrothermally Grown KNbO₃ Piezoelectric Films and Characterization of Piezoelectric Response Distribution**
 [[S4615]] ○Yosuke Uchida^{1,2}, Nao Saito³, Taketoshi Minato⁴, Hiroshi Funakubo⁵, Daisuke Koyama⁶, Masashi Ikegami³, Masaki Kyoso¹, Mutsuo Ishikawa³ (¹Tokyo City Univ., ²Tokyo Univ. of Tech., ³Toin Univ. of Yokohama, ⁴Institute for Molecular Science, ⁵Science Tokyo, ⁶Doshisha Univ.)

- 2P1-7** **Full material constants of DC and AC poled ternary system relaxor-PbTiO₃ single crystals grown by continuous feeding Bridgman process**
[[[S4475]]]
○Yohachi (John) Yamashita^{1,2}, Amane Shirai², Yuto Watanabe², Jingyu Chai², Osamu Furukawa², Hiroshi Maiwa², Tomoaki Karaki³, Zhengze Xu¹, Xiaoning Jiang¹ (¹NC State Univ., ²Shonan Inst. of Tech., ³Toyama Pref. Univ.)
- 2P1-8*** **Dielectric and piezoelectric property uniformity of AC-polarized resonators based on Mn-doped ternary piezoelectric single crystals grown by a continuous-feeding Bridgman process**
[[[S4434]]]
○Jingyu Chai¹, Yan Sun¹, Yohachi (John) Yamashita^{1,2}, Osamu Furukawa¹, Hiroshi Maiwa¹ (¹Shonan Inst. of Tech., ²NC State Univ.)
- 2P1-9*** **Properties and high-magnetic-field-induced crystal orientation of Eu-doped (Sr,Ca)₂NaNb₅O₁₅ lead-free piezoelectric ceramics**
[[[S4477]]]
○YiFan Ni¹, Shion Tomioka¹, Yutaka Doshida¹, Satoshi Tanaka², Hideki Tamura³, Yoshiki Takano⁴, Satoshi Demura⁴ (¹Ashikaga Univ., ²Nagaoka Univ. of Tech., ³Tohoku Inst. of Tech., ⁴Nihon Univ.)
- 2P1-10*** **Properties and Magnetic-Field-Induced Crystal Orientation of Na-Site Eu-Substituted Sr₂NaNb₅O₁₅ Ceramics (II)**
[[[S4487]]]
○Jiahao Jin¹, Linrun Xie¹, Yutaka Doshida¹, Satoshi Tanaka², Hideki Tamura³, Yoshiki Takano⁴, Satoshi Demura⁴ (¹Ashikaga Univ., ²Nagaoka Univ. of Tech., ³Tohoku Inst. of Tech., ⁴Nihon Univ.)
- 2P1-11** **Ultrasound-assisted thermal activation of MOF for efficient formaldehyde oxidation**
[[[S4516]]]
○Na-Hye Kim, Dae-Young Heo, Tae-Oh Kim (Kumoh Natl. Inst. Tech.)
- 2P1-12*** **Properties and Magnetic-Field-Induced Crystal Orientation of Na-Site Eu-Substituted (Sr,Ca)₂NaNb₅O₁₅ Ceramics (II)**
[[[S4454]]]
○Linrun Xie¹, Jiahao Jin¹, Yutaka Doshida¹, Satoshi Tanaka², Hideki Tamura³, Yoshiki Takano⁴, Satoshi Demura⁴ (¹Ashikaga Univ., ²Nagaoka Univ. of Tech., ³Tohoku Inst. of Tech., ⁴Nihon Univ.)
- 2P1-13*** **Nondestructive Characterization of Embedded Polymer Interfaces using Laser-Generated Focused Ultrasound**
[[[S4554]]]
○Burcak Guner, Hyoungh Won Baac (Sungkyunkwan Univ.)
- 2P2-1** **Audible effects of physiotherapeutic ultrasound on squeaky cheese**
[[[S4435]]]
Juha Koivuniemi¹, ○Vered Aharonson^{2,3}, Michiel Postema^{1,3} (¹Tampere Univ., ²Univ. Nicosia, ³Univ. Witwatersrand)
- 2P2-2*** **Finite Element Analysis and Structural Comparison of Piezoelectric Vibrators for Wearable Cardiac Sound Sensing**
[[[S4691]]]
○Haruka Goda, Mako Tanaka, Masayuki Tanabe, Makiko Kobayashi (Kumamoto Univ.)
- 2P2-3** **Graph Neural Network Based Ultrasonic Damage Source Localization Using Wavefield Forecasting**
[[[S4441]]]
○Neev Mehta¹, Abhinav PT¹, Amit Shelke¹, Anowarul Habib² (¹Indian Inst. of Tech., ²UiT The Arctic Univ. of Norway)
- 2P2-4*** **Ultrasonic Guided Wave Propagation Analysis for Non-Destructive Inspection of Finned Tubes in Heat Exchangers**
[[[S4443]]]
○Ambuj Kumar Gautam¹, Wen-Chaun Wu², Kai-Yu Lin³, Ching-Chung Yin³ (¹Indian Inst. of Tech., ²Natl. Defense Univ., ³Natl. Yang Ming Chiao Tung Univ.)
- 2P2-5** **Swarm Based Defect Detection and Sizing in Scanning Acoustic Microscopy**
[[[S4448]]]
○Kshijit Bajpai¹, Amit Shelke¹, Md. Mamun Molla², Anowarul Habib³ (¹Indian Inst. of Tech., ²North South Univ., ³UiT The Arctic Univ. of Norway)
- 2P2-6*** **Development of a Crystallographic Orientation Measurement Method for Iron-Based Superelastic Alloys via Resonant Ultrasound Spectroscopy with hammering sound**
[[[S4545]]]
○Shuma Mikami, Akira Nagakubo, Yoshikazu Ohara, Jie Xia, Toshihiro Omori (Tohoku Univ.)
- 2P2-7** **Investigation of the Relationship between Impact Conditions and the Frequency Characteristics of Lamb Waves Generated by High-Velocity Microparticle Impacts**
[[[S4561]]]
○Atsuki Shimamori¹, Masanori Kobayashi¹, Shun Teduka¹, Kanata Tsurumi¹, Kosei Nagasawa¹, Sunao Hasegawa² (¹Chiba Inst. of Tech., ²JAXA)
- 2P2-8** **Comparative study of stencil patterns for efficient and accurate sound field computation**
[[[S4563]]]
○Siyuan Liu, Zeming Xie, Yiyu Tan (Iwate Univ.)
- 2P2-9*** **An in-process defect detection framework in metal additive manufacturing using laser-generated ultrasound**
[[[S4577]]]
○Yongjoon Choi, Shota Harada, Takahiro Hayashi, Naoki Mori, Yuji Sato (Univ. of Osaka)

- 2P2-10** **A fast and efficient FCC-FDTD method for acoustic wave simulation**
[[[S4581]]] ○Zeming Xie, Siyuan Liu, Yiyu Tan (Iwate Univ.)
- 2P2-11*** **Investigation of a point-focusing phase-front ultrasonic probe using an axially oblique beam for evaluating the inner surface of steel pipes**
[[[S4586]]] ○Kana Goto¹, Toshihiro Tsuji¹, Takuya Kusaka¹, Tsuyoshi Mihara¹, Yoshio Udagawa², Shingo Mimura³
(¹Shimane Univ., ²Imaging Supersonic Laboratories, ³Chuo Spring)
- 2P2-12** **Non-contact and non-destructive measurement of thick plate using a laser-induced pulse sound source composed of a sphere and a spherical shell**
[[[S4594]]] ○Koji Aizawa, Kazuki Yamazoe, Kodai Sakai (Kanazawa Inst. of Tech.)
- 2P2-13** **Long-term nonlinearity imaging of live cells using focusing acoustic transducer with dual frequency peaks**
[[[S4600]]] ○Natsumi Fujiwara, Hiroki Okita, Hirotsugu Ogi (Univ. of Osaka)
- 2P2-14** **Precise molecular identification using a portable gas chromatograph with polar and nonpolar ball SAW sensors**
[[[S4604]]] ○Kazushi Yamanaka, Takamitsu Iwaya, Masashi Fukuzaki, Shingo Akao (Ball Wave Inc.)
- 2P3-1** **Investigation of Characteristics of a Complex Bar Resonator with a Square Cross Section and Diagonal Slits**
[[[S4511]]] ○Subaru Kudo (Ishinomaki Senshu Univ.)
- 2P3-2*** **Development of a disk-shaped microstrain detection sensor using a PLLA piezoelectric film based on resonant frequency shift**
[[[S4488]]] ○Kazunori Shibuya¹, Jun Takarada¹, Takuma Yamagami¹, Taiyo Tobe¹, Kenichi Mori², Masamichi Ando², Yoshiro Tajitsu¹, Ken Yamamoto¹ (¹Kansai Univ., ²Murata Manufacturing)
- 2P3-3*** **Influence of Electrode Fabrication Methods on the Impedance Characteristics of Electrospun PVDF Flexible Device**
[[[S4532]]] ○Lee Jeong Chan, Minoru Sasaki, Deqing Kong (Toyota Tech. Inst.)
- 2P3-4*** **A Langevin transducer with an Internal Cooling Structure Fabricated by Powder Bed Metal Additive Manufacturing**
[[[S4525]]] ○Takuma Minami, Yoshikazu Koike (Shibaura Inst. of Tech.)
- 2P3-5*** **Investigation of a low-temperature fabrication process for BiT/TO+Sr sol-gel composite materials**
[[[S4504]]] ○Mako Tanaka, Haruka Goda, Kei Nakatsuma, Makiko Kobayashi (Kumamoto Univ.)
- 2P3-6** **Evaluation of acoustic properties of ScAlN thin films using line-focus-beam ultrasonic material characterization system**
[[[S4602]]] ○Yuji Ohashi¹, Kaname Kobayashi¹, Takahiko Yanagitani², Kazuki Yokoo³, Shota Jin³, Takahiro Ito³
(¹Akita Pref. Univ., ²Waseda Univ., ³GEOMATEC)
- 2P3-7** **Lift-off Patterning of Tungsten Electrode for SAW Resonators**
[[[S4506]]] ○Zijiang Yang, Zhuolin Liu, Zijie Wei, Yao Shuai, Jingfu Bao, Ken-ya Hashimoto
(Univ. of Electronic Sci. and Tech. of China)
- 2P3-8** **Enhancement of coupling factors via Sc-doping variations in Sezawa-mode SAWs on multilayer ScAlN films with interfacial floated electrodes**
[[[S4513]]] ○Lyu Zherong^{1,2}, Peng Zheng¹, Shoji Kakio², Masashi Suzuki² (¹Hangzhou Dianzi Univ., ²Univ. of Yamanashi)
- 2P3-9*** **Resonance properties of surface acoustic waves on Ca₃TaGa₃Si₂O₁₄ thin plate bonded to quartz substrate**
[[[S4613]]] ○Hao Zhang^{1,2}, Jinkai Chen¹, Yuya Kobayashi², Masashi Suzuki², Shoji Kakio², Noritoshi Kimura³
(¹Hangzhou Dianzi Univ., ²Univ. of Yamanashi, ³Piezo Studio)
- 2P3-10*** **Resonance properties of surface acoustic waves on LiNbO₃/SiO₂/poly-Si/Si multilayered structure**
[[[S4648]]] ○Yun Ma^{1,2}, Weipeng Xuan¹, Tong Qiu¹, Masashi Suzuki², Shoji Kakio², Kentaro Hakiri³, Rei Goto³
(¹Hangzhou Dianzi Univ., ²Univ. of Yamanashi, ³Skyworks Solutions, Inc.)
- 2P3-11*** **Epitaxial growth and BAW characteristics of single crystal AlN films on single-crystal Ti electrodes/Multifunctional® interlayer/Si substrates.**
[[[S4630]]] ○Hideaki Gommori¹, Masashi Suzuki¹, Shoji Kakio¹, Masashi Seki², Takeshi Kijima² (¹Univ. of Yamanashi, ²GaiaNixx)

- 2P3-12** **Enhanced Power Handling of a 3.6 GHz Fundamental Mode Surface Acoustic Wave Filter Using a Multi-Layered Substrate and High Heat-Dissipation Package**
[[[S4697]]]
○Ryohei Komiyama, Takahiro Hasegawa, Takayuki Suzuki (TAIYO YUDEN Mobile Technology)
- 2P4-1*** **Electrocatalytic activity enhancement of Au@Pt core-shell nanoparticles via ultrafine bubbles and ultrasound**
[[[S4583]]]
○Yuki Mizuno¹, Hiroki Ishiguro¹, Tsuyoshi Yamaguchi¹, Jiye Jin², Keiji Yasuda¹ (¹Nagoya Univ., ²Shinshu Univ.)
- 2P4-2*** **Acceleration of amyloid fibril formation in a micro-scale confined space using acoustic streaming**
[[[S4584]]]
○Honoka Nishii, Hirotsugu Ogi, Kichitaro Nakajima (Univ. of Osaka)
- 2P4-3** **Pressure nodes in the standing wave field of an acoustic levitation system**
[[[S4660]]]
○Kenichi Narita¹, Tomoo Kamakura², Shuto Marume¹, Teruyuki Kozuka¹ (¹Aichi Inst. of Tech., ²Univ. of Electro-Comm.)
- 2P4-4*** **Investigation of a 200 kHz Airborne Ultrasonic Source Using a Thin Plate and a Multilayer Piezoelectric Actuator**
[[[S4590]]]
○Taiyo Watanabe, Hikaru Miura, Takuya Asami (Nihon Univ.)
- 2P4-5*** **Controlled Vertical Transition from Near-Field to Standing-Wave Acoustic Levitation Using a Flat Plate**
[[[S4606]]]
○Mitsuki Yoshida¹, Kohei Aono¹, Hideki Tamura², Manabu Aoyagi¹ (¹Muroran Inst. of Tech., ²Tohoku Inst. of Tech.)
- 2P4-6*** **Ultrasound irradiation for maintaining the fluidity of CO₂-loaded high-concentration aqueous 2-amino-2-methyl-1-propanol solution**
[[[S4622]]]
○Khuslen Tuvshinbayar, Shogo Fukushima, Hirokazu Okawa, Jie Ren, Takahiro Kato (Akita Univ.)
- 2P4-7** **Hysteresis phenomena at anti-resonance of piezoelectric admittance via constant current amplitude measurement**
[[[S4624]]]
○Naruhiro Iwama¹, Tatsuki Sasamura², Ryuichi Arakawa³, Asuka Tsujii³, Takashi Kasashima³, Wei Qiu², Takeshi Morita¹ (¹Univ. of Tokyo, ²Lund Univ., ³Niterra)
- 2P4-8*** **Identification of Vibration Modes of an Ultrasonic Transducer Based on Low-Frame-Rate Images**
[[[S4631]]]
○Haruto Ando, Yuki Kato (Kochi Univ. of Tech.)
- 2P4-9*** **Reduction of CO₂ concentration in seawater using depressurized ultrasonic vessel**
[[[S4653]]]
○Li Zhang, Kazuo Imai, Kentaro Nakamura (Science Tokyo)
- 2P4-10*** **Viscosity Measurement Based on the Free Damped Oscillation of an Acoustically Levitated Droplet**
[[[S4657]]]
○Kosuke Shigematsu, Daisuke Koyama (Doshisha Univ.)
- 2P4-11*** **Basic Study on Low-Frequency Driving of a Straight-Tube Thermoacoustic Power Generation System Using a Linear Reciprocating Generator**
[[[S4659]]]
○Kotaro Yoshida, Shin-ichi Sakamoto, Satoshi Hirayama (Univ. of Shiga Pref.)
- 2P4-12** **Balancing Hydrogen Production and Electrode Durability in 28 and 300 kHz Sonoelectrochemical Systems**
[[[S4669]]]
○Jongbok Choi, Dukyoung Lee, Iseul Na, Yuna Ko, Younggyu Son (Kumoh Natl. Inst. Tech.)
- 2P4-13** **Sonochemical Degradation of PFAS at 300 kHz under Different Gas Conditions**
[[[S4671]]]
○Dukyoung Lee, Jongbok Choi, Iseul Na, Yuna Ko, Younggyu Son (Kumoh Natl. Inst. Tech.)
- 2P4-14*** **Effect of frequency and amplitude modulated ultrasonic vibration on layer resonance assisted adhesive bonding**
[[[S4672]]]
○Yuya Tsukada, Naoki Mori, Takahiro Hayashi (Univ. of Osaka)
- 2P5-1*** **Minute sinusoidal displacement measurement using pulse compression for evaluating viscoelastic properties**
[[[S4548]]]
○Satoki Shintani, Takuro Ishii, Yoshifumi Saijo, Hiroshi Kanai, Mototaka Arakawa (Tohoku Univ.)
- 2P5-2*** **In situ culturing of vascular endothelial cells following retention under interferential acoustic field considering adhesion situation of microbubbles on cell surface**
[[[S4694]]]
○Hideaki Tsuchida¹, Ayako Noguchi¹, Ai Sakamoto¹, Keigo Nagasaki¹, Kanta Muramatsu¹, Yoshitaka Miyamoto², Daiki Omata³, Ryo Suzuki⁴, Kohji Masuda¹ (¹Tokyo Univ. of A&T, ²Science Tokyo, ³Tokyo Univ. Pharm. and Life Sci., ⁴Teikyo Univ.)

- 2P5-3*** **Analysis of shear wave propagation using optical and ultrasonic measurements for viscoelasticity assessment**
[[[S4565]]]
○Kakeru Kobayashi, Kensuke Honda, Kenji Yoshida, Tadashi Yamaguchi, Shinnosuke Hirata (Chiba Univ.)
- 2P5-4*** **Quantitative diagnosis of liver steatosis based on the Integration of Classification and Regression Models using Ultrasound Parametric Images**
[[[S4570]]]
○Daisuke Okazaki¹, Hidemi Unoza², Takayuki Kondo², Kenji Yoshida¹, Tadashi Yamaguchi¹, Shinnosuke Hirata¹
(¹Chiba Univ., ²Chiba Univ. Hosp.)
- 2P5-5*** **Preliminary Study of Blood Flow Velocity Distribution Estimation Using ConvLSTM-Based Spatiotemporal Learning**
[[[S4572]]]
Hongpeng Wang, Masaaki Omura, Ryo Nagaoka, Shangce Gao, ○Hideyuki Hasegawa (Univ. of Toyama)
- 2P5-6** **Comparison of reflection coefficient estimation for acoustic impedance microscopy**
[[[S4573]]]
○Ryo Nagaoka¹, Kazuto Kobayashi², Yuki Kawaguchi², Sachiko Yoshida³, Yoshiaki Tabuchi¹, Yusuke Oshima¹, Hideyuki Hasegawa¹, Naohiro Hozumi⁴
(¹Univ. of Toyama, ²Honda Electronics, ³Toyohashi Univ. of Tech., ⁴Hozumi Measurement Lab.)
- 2P5-7** **Evaluation of the spatial resolution of sound speed measurement using an opposed planar transducer-matrix array probe system**
[[[S4608]]]
○Shinnosuke Hirata, Mizuki Hashimoto, Kenji Yoshida, Tadashi Yamaguchi (Chiba Univ.)
- 2P5-8*** **Extension of blood vessel network extracted from ultrasound volumes using point cloud registration based on vascular structure**
[[[S4695]]]
○Kanau Sato¹, Kaho Takahashi¹, Yukino Takahashi¹, Kaori Shinoda¹, Takumi Noda¹, Shinya Onogi², Yoshikazu Nakajima², Yoshihiro Edamoto³, Kohji Masuda¹ (¹Tokyo Univ. of A&T, ²Science Tokyo, ³Secomedic Hosp.)
- 2P5-9*** **Effect of waveform distortion due to nonlinear propagation on background-subtracted shadowgraph measurement of high-intensity focused ultrasound field**
[[[S4625]]]
○Yuma Ono¹, Shohei Mori¹, Shin Yoshizawa^{1,2} (¹Tohoku Univ., ²SONIRE Therapeutics)
- 2P5-10*** **A Study on Robustness of a Method for Estimating Red Blood Cell Aggregate Size Based on Analysis of Ultrasonic Backscatter**
[[[S4627]]]
○Haruto Niiyama¹, Takuro Ishii¹, Yoshifumi Saijo¹, Satoshi Yashiro², Yasushi Ishigaki², Hiroshi Kanai¹, Mototaka Arakawa¹ (¹Tohoku Univ., ²Iwate Med Univ.)
- 2P5-11 *** **New bone formation in rats with simulated fracture by ultrasound irradiation**
[[[S4633]]]
○Yuta Murakami¹, Shouta Kitajima¹, Masaaki Onishi², Miwa Nakajima³, Motohiro Inoue⁴, Mami Matsukawa¹
(¹Doshisha Univ., ²Hyogo Med.Univ, ³Acupuncture and Moxibustion Med. Doktor Res. Inst., ⁴Takarazuka Univ. of Medical and Health Care)
- 2P5-12*** **Robust measurement method of two-dimensional sound speed distributions in vessel tissues using high-frequency acoustic microscopy**
[[[S4639]]]
○Anri Ikeda¹, Takuro Ishii¹, Yoshifumi Saijo¹, Kazuto Kobayashi², Mototaka Arakawa¹
(¹Tohoku Univ., ²Honda Electronics)
- 2P5-13*** **Compact Ultrasound Transducer for Sonophoresis Using Three Ultrasound Frequencies**
[[[S4642]]]
○Shinya Yamamoto, Naohiro Sugita, Tadahiko Shinshi (Science Tokyo)
- 2P5-14*** **Reference Imaging Plane Tracking in Ultrasound Image Sequences Using Deep Learning for Motion Correction**
[[[S4643]]]
○Junseok An, Naohiro Sugita, Tadahiko Shinshi (Science Tokyo)
- 2P5-15*** **Feature Analysis of Ultrasonic Echoes During Ocular Accommodation**
[[[S4645]]]
○Shunta Tozawa, Takumi Kanaya, Naoki Tano, Marie Tabaru (Science Tokyo)
- 2P5-16*** **Basic study on influence of acoustic properties of microstructures within livers on scattering characteristics**
[[[S4655]]]
○Tingzhen Zhang¹, Miyu Nagaoka¹, Jonathan Mamou², Shinnosuke Hirata¹, Kenji Yoshida¹, Tadashi Yamaguchi¹
(¹Chiba Univ., ²Weill Cornell Medicine)
- 2P5-17** **Three-dimensional acoustic observation of artificial myotube formation**
[[[S4656]]]
○Sachiko Yoshida¹, Yuki Kawaguchi², Ryo Nagaoka³, Naohiro Hozumi⁴, Kazuto Kobayashi²
(¹Toyohashi Univ. of Tech., ²Honda Electronics, ³Univ. of Toyama, ⁴Hozumi Measurement Lab.)

- 2P6-1*** **Fundamental study on a three-dimensional underwater acoustic positioning method utilizing sea-surface-reflected signals in multipath environment**
[[[S4720]]]
○Naoto Imazu¹, Tadashi Ebihara¹, Atsushi Tsuchiya¹, Yuji Sato¹, Takuya Aoki¹, Naoto Wakatsuki¹, Tohru Yoshihara²
(¹Univ. of Tsukuba, ²Aomi Construction)
- 2P6-2** **Range Estimation of Snapping Shrimp Sounds Using TDOA and Machine Learning**
[[[S4438]]]
○Yonghwa Choi¹, Sunhyo Kim¹, Hansoo Kim^{1,2}, Bum-Kyu Kim¹, Donhyug Kang¹, Sungho Cho^{1,2} (¹KIOST, ²UST)
- 2P6-3** **High-resolution temporal coherence analysis of underwater acoustic channels**
[[[S4555]]]
○Yukihiro Kida, Ayaka Yomoda, Mitsuyasu Deguchi, Yoshitaka Watanabe (JAMSTEC)
- 2P6-4** **Residual TCN equalizer for underwater OFDM communication under imperfect channel estimation**
[[[S4582]]]
○Kyu-Chil Park, Hyunsoo Jeong, Jihyun Park (Pukyong Natl. Univ.)
- 2P6-5*** **Simulation of header detection for communication signals transmitted by time division from multiple acoustic beacons**
[[[S4610]]]
○Kei Yamamoto, Tadashi Ebihara, Atsushi Tsuchiya, Naoto Wakatsuki, Yuji Sato, Takuya Aoki (Univ. of Tsukuba)
- 2P6-6** **Effects of Warm-Eddy-Driven Sound Speed Structure on Deep-Water Acoustic Communication Performance**
[[[S4439]]]
○Sunhyo Kim¹, Sungho Cho^{1,2}, Hansoo Kim^{1,2}, Eung Kim¹, Donhyug Kang¹, Young Geul Yoon¹, Seung-Uk Im¹
(¹KIOST, ²UST)
- 2P6-7** **Long-Term Underwater Ambient Noise Monitoring at the Socheongcho Ocean Research Station in the Yellow Sea**
[[[S4479]]]
○Young Geul Yoon, Seong Hyeon Kim, Ho Youn Ji, Wan-Gu Kim, Baekjin Kim, Soonyeol Kwon, Bok Kyoung Choi, Byoung-Nam Kim (KIOST)
- 2P6-8*** **Fundamental study on communication quality improvement using a bi-concave lens for OSDM-based underwater acoustic communication**
[[[S4715]]]
○Kazuyoshi Chino, Tadashi Ebihara, Yuji Sato, Atsushi Tsuchiya, Takuya Aoki, Naoto Wakatsuki (Univ. of Tsukuba)
- 2P6-9** **Performance Evaluation of a Three-dimensional Underwater Acoustic Positioning System Using Acoustic Travel-time Sets and Database Matching**
[[[S4679]]]
○Tadashi Ebihara¹, Atsushi Tsuchiya¹, Yuji Sato¹, Takuya Aoki¹, Naoto Wakatsuki¹, Tohru Yoshihara^{2,1}
(¹Univ. of Tsukuba, ²Aomi Construction)
- 2P6-10*** **Track-initiation-based performance evaluation and optimal sonobuoy placement for networked sonar systems**
[[[S4650]]]
○Ryanguhun Kang¹, Seungnam Kang², Gihoon Byun¹
(¹Korea Maritime & Ocean Univ., ²Agency for Defense Development)

15:30-16:30 Biomedical ultrasound II Ocean acoustics I

Chair: Tadashi Yamaguchi (Chiba Univ.)

- 2E3-1** **In-Vivo Quantitative Ultrasound Imaging in Breast Cancer**
[[[S4452]]]
○Jonathan Mamou, Yasmine Guendouz, Cameron Hoerig (Weill Cornell Medicine)
- 2E3-2*** **3D Microhemodynamics of Adult Zebrafish Dorsal Micro-vessel by Ultrafast Hemispherical Ultrasound**
[[[S4701]]]
○I Gede Eka Sulistyawan¹, Takuro Ishii¹, Chih-Chung Huang², Yoshifumi Saijo¹
(¹Tohoku Univ., ²Natl. Cheng-Kung Univ.)
- 2E3-3*** **Simultaneous estimation of vehicle position and orientation using synthesized cross-correlation intensity**
[[[S4711]]]
○Atsushi Tsuchiya¹, Tadashi Ebihara¹, Yuji Sato¹, Takuya Aoki¹, Naoto Wakatsuki¹, Tohru Yoshihara²
(¹Univ. of Tsukuba, ²Aomi Construction)
- 2E3-4*** **Quantitative analysis of burrowing behavior in Hamaguri clams under different temperatures using a 3D acoustic coring system**
[[[S4641]]]
○Weizhen Liang¹, Katsunori Mizuno¹, Yohei Uehara², Yoshimoto Saito³, Kazutoshi Okamoto³
(¹Univ. of Tokyo, ²Shizuoka Pref. Res. Inst. Fish. Ocean, ³MaOI Inst.)

16:45-17:15 Award Ceremony

18:00-20:00 Banquet

9:00-9:45 Piezoelectric devices II

Chair: Yuji Ohashi (Akita Pref. Univ.)

- 3J1-1*** Planar Fresnel lens using in-plane polarization-inverted KNN epitaxial films for ultrasonic microscopy
[[[S4726]]]
○Wataru Oda^{1,2}, Takahiko Yanagitani^{1,2} (¹Waseda Univ., ²ZAiKEN)
- 3J1-2*** High overtone mode solidly mounted resonators with polarization inverted SiScAlN/ScAlN films
[[[S4597]]]
○Masato Hijikata¹, Masashi Suzuki¹, Shoji Kakio¹, Sri Ayu Anggraini² (¹Univ. of Yamanashi, ²AIST)
- 3J1-3*** Atomization induced by surface acoustic wave device for the generation of alginate microbeads
[[[S4539]]]
○Toshihiro Yamamoto, Yoshiyuki Tagawa, Yuta Kurashina (Tokyo Univ. of A&T)

10:00-12:00 Poster Session

Chair: Akira Harata (Kyushu Univ.)

- 3P1-1*** Investigation of a Detection Cell for Photoacoustic Measurement of Fine Particles in a Circulating Liquid
[[[S4636]]]
○Kaisei Nakamura, Akari Sekine, Kai Kitamura, Yoshikazu Koike, Uma Maheswari Rajagopalan (Shibaura Inst. of Tech.)
- 3P1-2** Development of Self-Actuated Ultrasonic Grinding Wheel
[[[S4466]]]
○Yuji Goto¹, Masahiko Jin¹, Hidenari Kanai² (¹Nippon Inst. of Tech., ²Kanari Engineering)
- 3P1-3*** Energy Harvesting by Combining a PZT and a Wide Topological Waveguide
[[[S4647]]]
Keisuke Toda¹, Alexandre Perque², Yusuke Hata¹, Yuri Fukaya¹, ○Kenji Tsuruta¹ (¹Okayama Univ., ²Saclay Univ.)
- 3P1-4** Formation of Band Gaps and Topological Boundary Modes in Locally Resonant Oscillator Systems
[[[S4620]]]
○Motonobu Tomoda (Oita Univ.)
- 3P1-5** Imaging topological edge modes of surface acoustic waves on a silicon phononic crystal
[[[S4654]]]
○Hiromi Kurano¹, Yasutaka Matsuo¹, Daiki Hatanaka², Hiroshi Yamaguchi², Kenji Tsuruta³, Motonobu Tomoda⁴, Osamu Matsuda¹ (¹Hokkaido Univ., ²NTT BRL, ³Okayama Univ., ⁴Oita Univ.)
- 3P1-6** In-situ observation of time-dependent thickening in dairy beverages and cream using the EMS method
[[[S4616]]]
○Taichi Hirano, Ayumu Tohge (Meiji Univ.)
- 3P1-7** Fabrication of microbubbles using inkjet technology
[[[S4550]]]
○Shujiro Mitani, Miki Hirano, Keiji Sakai (Univ. of Tokyo)
- 3P1-8*** Study on the precise waveform measurement with a Surface Plasmon Resonance Sensor
[[[S4605]]]
○Ayumi Matsudera, Keito Kodama, Mami Matsukawa (Doshisha Univ.)
- 3P1-9*** Numerical Analysis of Rayleigh-Bloch-Type Guided Waves Propagating along a Rectangular Hole Array
[[[S4614]]]
○Akira Sasaki, Naoki Mori, Takahiro Hayashi (Univ. of Osaka)
- 3P1-10*** THz Beam Modulation Using Periodic Liquid Surface Deformation
[[[S4678]]]
○Naoki Tano, Adrian Dobroiu, Safumi Suzuki, Marie Tabaru (Science Tokyo)
- 3P1-11** Evaluation of photothermal heating properties of Silicon nanostructures by laser heterodyne photothermal displacement method with controlled excitation and probe positions
[[[S4626]]]
○Sotaro Hashimoto¹, Kei Kihara¹, Satoshi Ishii², Atsuhiko Fukuyama¹ (¹Univ. of Miyazaki, ²NIMS)
- 3P1-12*** Terahertz wave manipulation via medium distribution control using Chladni vibrations
[[[S4686]]]
○Yuto Ono, Naoki Tano, Adrian Dobroiu, Safumi Suzuki, Marie Tabaru (Science Tokyo)
- 3P2-1*** Time-course Measurement of Viscoelasticity of Microscale Protein Droplets using Spatiotemporally Controlled Acoustic Radiation Force
[[[S4491]]]
○Shuta Nakatani, Hirotsugu Ogi, Kichitaro Nakajima (Univ. of Osaka)
- 3P2-2*** Finite Element Analysis of Soft Microparticle Deformation under Focused-Ultrasound-Induced Acoustic Radiation Force
[[[S4498]]]
○Hirofumi Shimizu, Natsumi Fujiwara, Hiroki Okita, Taketo Sato, Hirotsugu Ogi (Univ. of Osaka)

- 3P2-3** **Detection limit of line-scratch depth on the inner surface of steel pipes using a line-focusing phase-front ultrasonic probe**
[[[S4552]]]
○Toshihiro Tsuji¹, Taichi Hamaya¹, Takuya Kusaka¹, Tsuyoshi Mihara¹, Yoshio Udagawa², Shingo Mimura³
(¹Shimane Univ., ²Imaging Supersonic Laboratories, ³Chuo Spring)
- 3P2-4*** **High-Resolution Phase Coherence Imaging Using Multiple Receiving Apertures in Ultrasonic Phased Array**
[[[S4558]]]
○Yudai Yashiro, Yoshikazu Ohara (Tohoku Univ.)
- 3P2-5*** **Fundamental study on water-immersion nonlinear ultrasonic imaging method for evaluation of metal joints formed by ultrasonic welding**
[[[S4587]]]
○Yuto Suzuki¹, Toshiki Yoshikawa¹, Emiko Ishikawa², Yoshiya Taniguchi², Yosuke Ono², Yoshikazu Ohara¹
(¹Tohoku Univ., ²Yazaki)
- 3P2-6*** **Internal Inspection of Concrete Structures Using Auto-Frequency-Adaptive 3D Ultrasonic Phased-Array Imaging and Its Extension to Augmented Reality**
[[[S4588]]]
○Yuto Fujikawa¹, Tomoki Nagata², Hyo Eun Joo³, Yuya Takahashi⁴, Timothy James Ulrich^{5,6}, Yoshikazu Ohara¹
(¹Tohoku Univ., ²EPFL, ³Univ. of Seoul, ⁴Univ. of Tokyo, ⁵Texas A&M Univ., ⁶Los Alamos Natl. Lab.)
- 3P2-7*** **Analytical framework for bulk modulus of soft colloids focusing on positional fluctuations under acoustic trapping**
[[[S4591]]]
○Yuri Hideshima, Hirotsugu Ogi, Kichitaro Nakajima (Univ. of Osaka)
- 3P2-8** **Non-destructive Testing of Welds Using Air-coupled Ultrasound and Statistical Data Analysis**
[[[S4601]]]
○Yuusuke Tanaka, Taku Asakawa, Ryu Izumi, Yukio Ogura (Japan Probe)
- 3P2-9** **Nonlinear Processing of Cross-Correlation Maps for Reflection Point Localization Using a Single-Element Rectangular Transducer**
[[[S4611]]]
○Hiroyuki Masuyama (NIT, Toba College)
- 3P2-10** **Development of a Sock-Type Dry Couplant for Ultrasonic Thickness Measurement of Pipes Without Liquid Couplant**
[[[S4621]]]
○Sara Yoshio, Akiko Hirao, Tatsunori Watanuki (Toshiba)
- 3P2-11*** **Evaluation of hydrogen gas response of nanogap Pd/Au nanoparticles**
[[[S4664]]]
○Ryo Miyamoto, Kanta Adachi, Nobutomo Nakamura (Univ. of Osaka)
- 3P2-12*** **Evaluation of shear wave propagation using chitosan adhesion phantoms**
[[[S4681]]]
○Saramu Abe¹, Naoki Tano¹, Hiroya Abe², Marie Tabaru¹ (¹Science Tokyo, ²Tohoku Univ.)
- 3P2-13*** **Anisotropy measurement of surface acoustic wave on tensile loading phantom using airborne ultrasound**
[[[S4682]]]
○Keiya Yamashita, Naoki Tano, Kentaro Nakamura, Marie Tabaru (Science Tokyo)
- 3P2-14*** **Development and acoustic morphology analysis of soil phantoms containing organic matter**
[[[S4685]]]
○Rikuta Uehara¹, Naoki Tano¹, Mototaka Arakawa², Yuki Kawaguchi³, Kazuto Kobayashi³, Marie Tabaru¹
(¹Science Tokyo, ²Tohoku Univ., ³Honda Electronics)
- 3P2-15** **LET Dependence in Visualization of Charged Heavy Particle Tracks in Water with Ultrasound Imaging**
[[[S4727]]]
○Masanori Kobayashi¹, Osamu Okudaira¹, Naoya Shikazono², Kazuhiro Terasawa³, Takeo Iwai⁴, Satoshi Kodaira⁵, Nagaya Okada⁶ (¹Chiba Inst. of Tech., ²QST-KPSI, ³Keio Univ., ⁴Yamagata Univ., ⁵NIRS-QST, ⁶Honda Electronics)
- 3P2-16** **Scanning Acoustic Microscopy for Quantitative Structural Profiling of Human Brain Organoids**
[[[S4436]]]
Aditya Sunil Lambat¹, ○Anowarul Habib², Matthieu Thomas³, Ganesh Acharya⁴, Balpreet Singh Ahluwalia², Frank Melandsø², Mukesh Varshney³, Azeem Ahmad²
(¹Indian Inst. of Tech., ²UiT The Arctic Univ. of Norway, ³Karolinska Ins., ⁴Karolinska Inst. and Center for Fetal Medi, Karolinska Univ. Hosp.)
- 3P3-1*** **Characterization of Automotive Engine Oil and Comparison Between Vehicles Using a Surface Acoustic Wave Device**
[[[S4445]]]
○Yuho Okada, Jun Kondoh (Shizuoka Univ.)
- 3P3-2*** **Study on Deep Lung Drug Delivery by a Surface Acoustic Wave Nebulizer and Its Atomization and Transport Characteristics**
[[[S4444]]]
○Sohei Uno, Jun Kondoh (Shizuoka Univ.)

- 3P3-3*** **Development of Wireless QCR Sensor for In Vivo Cardiac Pressure Measurement**
[[[S4473]]]
○Takato Otake¹, Manabu Suzuki¹, Fumihito Kato^{1,2}, Hirotsugu Ogi² (¹Nippon Inst. of Tech., ²Univ. of Osaka)
- 3P3-4*** **Improved Performance of Quartz Resonator Hydrogen Sensor Using PdAu Film under Compressive Stress**
[[[S4482]]]
○Hikaru Motohashi¹, Takato Otake¹, Manabu Suzuki¹, Fumihito Kato^{1,2}, Hirotsugu Ogi² (¹Nippon Inst. of Tech., ²Univ. of Osaka)
- 3P3-5*** **Study on a lead-free ring-type underwater acoustic propulsion system with 36° Y-cut LiNbO₃ substrate**
[[[S4544]]]
○Jinsei Namikawa, Minoru Sasaki, Deqing Kong (Toyota Inst. of Tech.)
- 3P3-6*** **Relationship between crystal grain structure and intrinsic Q_m in ScAlN films estimated by pulse-echo technique**
[[[S4729]]]
○Cocono Mita^{1,2}, Yohkoh Shimano^{1,2}, Takahiko Yanagitani^{1,2} (¹Waseda Univ., ²ZAIKEN)
- 3P3-7** **Excitation of GHz-band shear modes in ZnO films grown by sputtering with DC or RF bias applied to the substrate**
[[[S4724]]]
○Shinji Takayanagi¹, Keita Sakamoto¹, Yuya Yoshida¹, Takahiko Yanagitani² (¹Doshisha Univ., ²Waseda Univ.)
- 3P3-8** **A Calibration Unit for Vector Measurement of Nonlinear Outputs in RF SAW/BAW Devices**
[[[S4559]]]
○Hongwei Yu, Yuanyuan Liu, Jiazheng Li, Jingfu Bao, Ken-ya Hashimoto (Univ. of Electronic Sci. and Tech. of China)
- 3P3-9*** **Vector measurements of third-order nonlinear responses generated by RF-SAW resonators and their application to time-domain analysis**
[[[S4566]]]
○Riku Toyonaga¹, Taiga Kasamoto¹, Yasumasa Taniguchi², Tatsuya Omori¹ (¹Chiba Univ., ²Murata Manufacturing)
- 3P3-10*** **Time-frequency analysis of nonlinear responses generated by RF-SAW resonators on LiNbO₃ and LiTaO₃ substrates**
[[[S4568]]]
○Naoya Tsutsui¹, Yasumasa Taniguchi², Tatsuya Omori¹ (¹Chiba Univ., ²Murata Manufacturing)
- 3P3-11*** **Analysis of thickness-shear mode resonance properties of piezoelectric substrates with periodic voids**
[[[S4560]]]
○Hikaru Nakajima, Masashi Suzuki, Shoji Kakio (Univ. of Yamanashi)
- 3P3-12*** **SAW transverse-mode suppression on LiNbO₃/quartz bonded structures by placing voids below the electrode edges**
[[[S4596]]]
○Masahiro Kawahara, Masashi Suzuki, Shoji Kakio (Univ. of Yamanashi)
- 3P3-13** **Double-Mode Resonator Filters Using Laterally Excited Bulk Acoustic Wave Resonators (XBARs)**
[[[S4503]]]
○Sho Nagatomo, Katsuya Daimon, Naohiro Nodake, Takeshi Nakao (Murata Manufacturing)
- 3P4-1*** **Effect of Solid Particles and Geometric Conditions on Sonochemical and Sonophysical Activity at 20 kHz**
[[[S4677]]]
○Yuna Ko, Iseul Na, Yeeun Kim, Yeonwoo Cho, Younggyu Son (Kumoh Natl. Inst. Tech.)
- 3P4-2*** **Evaluation of contactless rotational characteristics of a disk using an acoustic vortex beam source**
[[[S4571]]]
○Ui Takagi, Zhu Peixian, Hideyuki Nomura (Univ. of Electro-Comm.)
- 3P4-3*** **Evaluation of optical aberration in a compact ultrasonic liquid crystal tunable lens**
[[[S4692]]]
○Ryoga Noma, Daisuke Koyama (Doshisha Univ.)
- 3P4-4** **Stability of harmonic core structures in nonlinearly propagating acoustic vortex beams**
[[[S4576]]]
○Hideyuki Nomura, Ui Takagi, Peixian Zhu (Univ. of Electro-Comm.)
- 3P4-5*** **Ring-type high-power ultrasonic transducer with focusing mechanism**
[[[S4712]]]
○Hayato Nishimura, Takeshi Morita (Univ. of Tokyo)
- 3P4-6** **High-power phased array for acoustic 3D printing**
[[[S4456]]]
Martin Weber, Jere Hyvönen, Mikko Koskeniemi, Joel Jääskeläinen, Akari Shimmi, Qianruo Wang, ○Ari Salmi (Univ. of Helsinki)
- 3P4-7** **Fabrication of TNT/Ultrasonicated TiO₂ bilayer photoelectrodes for enhanced DSSC photovoltaic performance**
[[[S4515]]]
○Jun-Seo Kim, Tae-Oh Kim (Kumoh Natl. Inst. Tech.)
- 3P4-8** **Manipulation of Cylindrical Objects by Output Control of Ultrasonic Transducers***
[[[S4507]]]
○Kotaro Miwa¹, Kenichi Narita¹, Shuto Marume¹, Masahiro Toyoda¹, Yuji Honda², Tomoo Kamakura³, Teruyuki Kozuka¹ (¹Aichi Inst. of Tech., ²Honda Electronics, ³Univ. Electro-Comm.)

- 3P4-9** **Beam Narrowing of a Parametric Speaker with Wide-Angle Directivity Control**
[[[S4533]]] ○Toshiki Imamura, Kenji Ikeda (SECOM)
- 3P4-10*** **Visualization and measurement of airborne ultrasound using compressed sensing and the BOS method**
[[[S4632]]] ○Karen Taketani, Haruto Ando, Yuki Kato (Kochi Univ. of Tech.)
- 3P4-11** **Object dynamics during transportation in non-contact grasping using acoustic radiation pressure and acoustic streaming**
[[[S4638]]] ○Kohei Aono¹, Yuta Fujioka¹, Hideki Tamura², Manabu Aoyagi¹, Hidekazu Kajiwar¹
(¹Muroran Inst. of Tech., ²Tohoku Inst. of Tech.)
- 3P4-12*** **Characteristics of acoustic helical focusing fields**
[[[S4667]]] ○Shuto Marume¹, Tomoo Kamakura², Kenichi Narita¹, Teruyuki Kozuka¹ (¹Aichi Inst. of Tech., ²Univ. of Electro-Comm.)
- 3P4-13*** **Evaluation of particle velocity distribution in a solid-liquid separation device using ELIPS-SAW**
[[[S4710]]] ○Ririka Sato¹, Kyohei Yamada², Chikahiro Imashiro¹, Takeshi Morita¹ (¹Univ. of Tokyo, ²Kansai Univ.)
- 3P4-14** **Effects of Flow Rate and Input Power on Sonochemical Oxidation Activity in a High-Frequency Ultrasonic Flow System**
[[[S4673]]] ○Iseul Na, Dukyoung Lee, Jongbok Choi, Yuna Ko, Younggyu Son (Kumoh Natl. Inst. Tech.)
- 3P5-1** **Ultrasound-induced cellular response thresholds depend on stimulation frequency and cell type in C2C12 and L929 Cells**
[[[S4658]]] ○Nagisa Tsujimura¹, Yumi Matsushita², Masafumi Shimojo², Makoto Higuchi², Takeshi Morita¹, Chikahiro Imashiro¹
(¹Univ. of Tokyo, ²QST-ANC)
- 3P5-2*** **Validation of attenuation estimation accuracy using reference frequency method at high frequencies**
[[[S4666]]] ○Taisei Nojiri¹, Miyu Nagaoka¹, Jonathan Mamou², Cameron Hoerig², Shinnosuke Hirata^{1,3}, Kenji Yoshida^{1,3},
Tadashi Yamaguchi^{1,3} (¹Chiba Univ., ²Weill Cornell Medicine, ³Chiba Univ. Hosp.)
- 3P5-3** **Automatic Muscle Fiber Orientation Estimation for Adaptive ROI Rotation in Continuous Shear Wave Imaging**
[[[S4675]]] ○Ren Koda¹, Masashi Aoyagi², Ryosuke Ando², Hitoshi Shitara¹, Yoshiki Yamakoshi¹ (¹Gunma Univ., ²JISS)
- 3P5-4*** **Enhancement of cell proliferation efficiency under low intensity ultrasound exposure considering cell cycle**
[[[S4683]]] ○Kanta Muramatsu¹, Ayako Noguchi¹, Keigo Nagasaki¹, Ai Sakamoto¹, Hideaki Tsuchida¹, Yoshitaka Miyamoto²,
Takashi Mochizuki³, Kohji Masuda¹ (¹Tokyo Univ. of A&T, ²Science Tokyo, ³Medical Ultrasound Lab.)
- 3P5-5** **A Comparison of Acoustic Profiles between Living and Chemically-Fixed Cells Using Scanning Acoustic Microscopy**
[[[S4684]]] ○Yuki Kawaguchi¹, Ryo Nagaoka², Kazuto Kobayashi¹, Naohiro Hozumi³, Sachiko Yoshida⁴
(¹Honda Electronics, ²Univ. of Toyama, ³Hozumi Measurement Lab., ⁴Toyohashi Univ. of Tech.)
- 3P5-6*** **Comparison between simulation and experimental measurement of acoustic radiation force exerted on a thin catheter under a quasi-standing wave field**
[[[S4693]]] ○Kai Watanabe, Nodoka Tanaka, Ayako Noguchi, Takumi Noda, Kohji Masuda (Tokyo Univ. of A&T)
- 3P5-7** **Preliminary Investigation of Magnetic Nanoparticle-Based Monitoring of Thermal Coagulation during High-Intensity Focused Ultrasound Treatment using Magnetic Particles**
[[[S4564]]] ○Ryo Takagi, Zhiwei Tay (AIST)
- 3P5-8** **Precise ultrasound harmonic imaging -2nd report**
[[[S4609]]] ○Chikayoshi Sumi (Sophia Univ.)
- 3P5-9*** **Effects of speech enhancement on the intelligibility of distantly presented bone-conducted ultrasound**
[[[S4698]]] ○Naoya Takahashi¹, Sho Otsuka¹, Seiji Nakagawa^{1,2} (¹Chiba Univ., ²Chiba Univ. Hosp.)
- 3P5-10*** **Centrifugation system with ultrasound using wide-mouth bottle**
[[[S4700]]] ○Suzuha Morimoto, Ru Konno, Taishi Kotsuka, Yoshiyuki Tagawa, Yuta Kurashina (Tokyo Univ. of A&T)
- 3P5-11*** **Estimation of air- and bone-conducted components of self-perceived mastication sounds**
[[[S4703]]] ○Takumi Shida¹, Sho Otsuka¹, Seiji Nakagawa^{1,2} (¹Chiba Univ., ²Chiba Univ. Hosp.)
- 3P5-12*** **Experimental study on deep learning-based conversion among ultrasound rf-echo signals, envelope signals, and corresponding images**
[[[S4704]]] ○Wilson David Rodriguez, Chikayoshi Sumi (Sophia Univ.)

- 3P5-13*** Underwater listening characteristics of bone-conduction earphones
[[[S4705]]]
○Ren Onishi¹, Irwansyah¹, Sho Otsuka¹, Seiji Nakagawa^{1,2} (¹Chiba Univ., ²Chiba Univ. Hosp.)
- 3P5-14*** Mamba U-Net for joint segmentation and benign/malignant differentiation of breast ultrasound tumors
[[[S4707]]]
○Chunwei Chen, Chikayoshi Sumi (Sophia Univ.)
- 3P5-15*** Ultrasonic Velocity Anisotropy in the Rat Cranial Bone Matrix
[[[S4708]]]
Yohei Sasaki, ○Yuta Murakami, Mami Matsukawa (Doshisha Univ.)
- 3P5-16*** Evaluation of drug delivery efficiency using a distance adjustment mechanism equipped with an ultrasound irradiation device
[[[S4713]]]
○Yoshiaki Sasaki¹, Munenari Itoh², Hirotaka James Okano², Yuta Kurashina¹
(¹Tokyo Univ. of A&T, ²Jikei Univ. School of Med.)
- 3P5-17** Perception characteristics of ambient sounds with various audio devices: A comparison of bone-conduction, cartilage-conduction, and open-ear earphones
[[[S4725]]]
○Yijia Xue¹, Kazusa Uchida¹, Irwansyah¹, Sho Otsuka¹, Seiji Nakagawa^{1,2} (¹Chiba Univ., ²Chiba Univ. Hosp.)
- 3P6-1*** Basic study on underwater acoustic positioning using direct-path arrival time filtering and dynamic beacon selection
[[[S4723]]]
○Taisei Kiriya¹, Tadashi Ebihara¹, Atsushi Tsuchiya¹, Yuji Sato¹, Takuya Aoki¹, Naoto Wakatsuki¹, Tohru Yoshihara²
(¹Univ. of Tsukuba, ²Aomi Construction)
- 3P6-2** A Basic Study on the Influence of Body Motion on Underwater Acoustic Communication Between an Unmanned Seaplane and an AUV
[[[S4719]]]
○Yoshitaka Watanabe, Tatsuya Kaneko, Mitsuyasu Deguchi (JAMSTEC)
- 3P6-3** Characteristics of Mid-Frequency Sound Propagation in a Deep-sea Mesoscale Warm Eddy Environment
[[[S4440]]]
○Hansoo Kim^{1,2}, Sunhyo Kim¹, Eung Kim¹, Sungho Cho^{1,2}, Seonghyeon Kim¹, Donhyug Kang¹, Young Geul Yoon¹, Seung-Uk Im¹ (¹KIOST, ²UST)
- 3P6-4*** Evaluation of OSDM-Based underwater acoustic communication with linear time-varying carrier frequency offset compensation
[[[S4709]]]
○Ryoichi Ishijima, Tadashi Ebihara, Naoto Wakatsuki (Univ. of Tsukuba)
- 3P6-5*** Chaotic scrambling versus block interleaving for image identifiability over measured time-varying underwater acoustic channels
[[[S4706]]]
○Hyunsoo Jeong¹, Jihyun Park², Kyu-Chil Park¹ (¹Pukyong Natl. Univ., ²Acoustic and Vibration Engineering)
- 3P6-6*** Underwater acoustic positioning using intensity integration of reconstructed wavefront sets in multipath environments
[[[S4731]]]
○Taiga Saito¹, Tadashi Ebihara¹, Atsushi Tsuchiya¹, Yuji Sato¹, Naoto Wakatsuki¹, Tohru Yoshihara²
(¹Univ. of Tsukuba, ²Aomi Construction)
- 3P6-7** Long-term observation of whale and fish vocalizations using cabled ocean bottom seismometers and non-cabled hydrophones in the waters of western Japan
[[[S4612]]]
○Ryoichi Iwase, Mitsuki Kuroda, Satoshi Ogura, Takafumi Kasaya, Katsunori Fujikura (JAMSTEC)
- 3P6-8** Underwater Radiated Noise Measurement of a Small-Sized Unmanned Surface Vessel in Shallow Water
[[[S4469]]]
○Wan-Gu Kim, Yosup Park, Seong Hyeon Kim, Ho Youn Ji, In Sung Jang, Byoung-Nam Kim (KIOST)
- 3P6-9*** A fundamental study on peak clipping for enhancing detection performance of a finless porpoise-inspired biomimetic ranging signal
[[[S4478]]]
○Reza Prasetyawan, Hanako Ogasawara, Takanobu Kuroyama, Kazuyoshi Mori (Natl. Defense Academy)
- 3P6-10** Effect of shell geometry on the resonant frequencies of a flexensional transducer with a waisted cylindrical shell
[[[S4493]]]
○Moojoon Kim¹, Jungsoon Kim² (¹Pukyong Natl. Univ., ²Tongmyong Univ.)

12:00-13:30 Lunch Time

13:30-14:20 Plenary Talk II

Chair: Yoshikazu Ohara (Tohoku Univ.)

- 3PL AI-Driven Multidomain Characterization with Scanning Acoustic Microscopy: Industrial and Biomedical Perspectives**
 ○Anowarul Habib (UiT The Arctic Univ. of Norway)
- 14:20-15:05 Biomedical ultrasound III**
Chair: Ryo Takagi (AIST)
- 3J2-1*** **Passive acoustic mapping of nonlinearly oscillating nanobubbles exposed to focused ultrasound**
 [[S4637]]
 ○Shunsuke Sato¹, Shohei Mori¹, Hideyuki Okamoto², Daiki Omata², Yoichi Negishi², Shin Yoshizawa¹
 (¹Tohoku Univ., ²Tokyo Univ. Pharm. and Life Sci.)
- 3J2-2*** **Retention and co-culture of heterogeneous cells toward multilayered structure formation using interferential acoustic field**
 [[S4670]]
 ○Ayako Noguchi¹, Ai Sakamoto¹, Hideaki Tsuchida¹,
 Keigo Nagasaki¹, Kanta Muramatsu¹, Yoshitaka Miyamoto², Daiki Omata³, Ryo Suzuki⁴, Kohji Masuda¹
 (¹Tokyo Univ. of A&T, ²Science Tokyo, ³Tokyo Univ. Pharm. and Life Sci., ⁴Teikyo Univ.)
- 3J2-3*** ***In Vivo* Sequential Ultrasound Irradiation for Drug Delivery Using a Hydrogel Drug Reservoir**
 [[S4716]]
 ○Tsubasa Soita¹, Kotaro Fujisiro¹, Kazumi Shimada¹, Munenari Itoh², Hirotaka James Okano², Yuta Kurashina¹
 (¹Tokyo Univ. of A&T, ²Jikei Univ. School of Med.)
- 15:15-16:15 Measurement techniques III High power ultrasound III**
Chair: Makiko Kobayashi (Kumamoto Univ.)
- 3J3-1** **Tracer-free Contactless Acoustic Microrheometry for Phase-separated Polymer Condensates**
 [[S4492]]
 ○Kichitaro Nakajima, Yuta Suzuki, Shuta Nakatani, Hirotugu Ogi (Univ. of Osaka)
- 3J3-2*** **Selective crack imaging using vibro-ultrasonic phased array based on local defect heating**
 [[S4649]]
 ○Taketo Iijima¹, Toshiki Yoshikawa¹, Akira Nagakubo¹, Lukasz Pieczonka², Koen Van Den Abeel³, Yoshikazu Ohara¹
 (¹Tohoku Univ., ²AGH Univ. of Krakow, ³KU Leuven)
- 3J3-3*** **Evaluation of Acoustic Pressure Characteristics of an ELliptical reflector for hIgh-Power ultraSound (ELIPS) in Water**
 [[S4687]]
 ○Makoto Shimaoka¹, Yumi Matsushita², Masafumi Shimojo², Makoto Higuchi², Chikahiro Imashiro¹, Takeshi Morita¹
 (¹Univ. of Tokyo, ²QST-ANC)
- 3J3-4** **Direct observation of harmonic acoustic fields generated by fluid nonlinearity in an acoustofluidic microchannel**
 [[S4529]]
 ○Tatsuki Sasamura, Thierry Baasch, Wei Qiu (Lund Univ.)
- 16:15-17:00 Ocean acoustics II**
Chair: Takenobu Tsuchiya (Kanagawa Univ.)
- 3J4-1*** **Improving phase tracking of multipath waves in Mch-DFE for underwater acoustic communication**
 [[S4674]]
 ○Ayaka Yomoda, Yukihiro Kida, Mitsuyasu Deguchi, Yoshitaka Watanabe (JAMSTEC)
- 3J4-2*** **Inverse-filter-based phase correction for long-range FDTD simulation of underwater acoustic propagation**
 [[S4717]]
 ○Kodai Ono¹, Tadashi Ebihara¹, Naoto Wakatsuki¹, Atsushi Tsuchiya¹, Yuji Sato¹, Takuya Aoki¹, Tohru Yoshihara²
 (¹Univ. of Tsukuba, ²Aomi Construction)
- 3J4-3** **Numerical investigation of transducer arrangement for bistatic echo sounding of phytoplankton**
 [[S4619]]
 ○Takanobu Kuroyama, Satrio Tegas Wicaksono, Hanako Ogasawara, Kazuyoshi Mori (Natl. Defense Academy)
- 17:00-17:15 Closing Ceremony**