Tomohiko Nakamura

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Research Interests

Signal-processing-inspired deep learning, audio and music signal processing, and machine learning

Job

Senior Researcher **Apr. 2023–Present**
The National Institute of Advanced Industrial Science and Technology (AIST), Japan.

Project Research Associate **Sept. 2019–Mar. 2023**
Graduate School of Information Science and Technology, The University of Tokyo, Japan.

Researcher **Apr. 2016–Aug. 2019**
Intelligent Systems Laboratory, SECOM, Japan.

Research Fellow (DC2) **Apr. 2015–Mar. 2016**
Japan Society for the Promotion of Science (JSPS), Japan.

Education

Ph.D. degree in Information Science and Technology **Mar. 2016**
Graduate School of Information Science and Technology, The University of Tokyo, Japan.

Master's degree in Information Science and Technology **Mar. 2013**
Graduate School of Information Science and Technology, The University of Tokyo, Japan.

Bachelor's degree in Engineering **Mar. 2011**
Faculty of Engineering, The University of Tokyo, Japan.

Teaching

Applied Gaussian Process and Machine Learning **6, Dec. 2021**
Graduate School of Information Science and Technology, The University of Tokyo, Japan.

Advanced Signal Processing **23, June 2020 and 21, June 2022, June 2024**
Graduate School of Information Science and Technology, The University of Tokyo, Japan.

Student Experiment **Apr. 2020–Mar. 2023**
Department of Mathematical engineering and information physics, The University of Tokyo, Japan.

Skills

Languages: English (basic), Japanese (native)
Programming: Python, C/C++, Golang, Javascript, Matlab

Competitive Funds

Funds (Research Representative)

Development of deep-layered analysis-by-synthesis techniques for acoustic scene analysis with human intervention
JSPS KAKENHI *Apr. 2023–Mar. 2027*

Sampling-frequency-independent deep learning for audio media processing
JST ACT-X (Frontier of Mathematics and Information Science) *Oct. 2021–Mar. 2024*

Research on acoustic scene analysis by integrating time-domain deep learning and multiresolution analysis
JSPS KAKENHI *Apr. 2020–Mar. 2023*

Time-domain audio source separation based on wavelet analysis and deep learning
Research Grant (A), The Tateisi Science and Technology Foundation *Apr. 2020–Mar. 2021*

Automatic design of wavelet basis functions for end-to-end audio source separation
Kawai Foundation for Sound Technology and Music *Apr. 2020–Mar. 2021*

Autonomous audio signal processing based on imitating human auditory system
JSPS KAKENHI *Apr. 2015–Mar. 2016*

Funds (Co-researcher)

Exploration of subsurface faults by big data analysis of seismic waveforms using signal processing and machine learning
Seismology TowArd Research innovation with data of Earthquake *Apr. 2023–Mar. 2026*

Research on singing voice synthesis for group singing with humans and computers
JSPS KAKENHI Grant-in-Aid for Challenging Research (Exploratory) *Jul. 2023–Mar. 2025*

Development of Machine Learning and Database Infrastracture for Chorus Singing Voice Synthesis
NII-CRIS Commissioned Research *Sep. 2022–Mar. 2023*

Data-Driven Measurement Techniques for High-Resolution Analysis of Spatial Acoustic Environment and its Applications
JSPS KAKENHI Grant-in-Aid for Scientific Research (B) *Apr. 2022–Mar. 2026*

Enhancement of Acoustic Virtual Reality and Sound Communication Capability Based on Small Data Machine Learning Theory
JSPS KAKENHI Grant-in-Aid for Scientific Research (A) *Apr. 2020–Mar. 2023*

Travel Grants

Grants for Researchers Attending International Conferences
The Tateishi Science and Technology Foundation *Oct. 2014.*

Grants for Researchers Attending International Conferences
The Hara Research Foundation *Sept. 2014.*

Grants for Researchers Attending International Conferences
The Telecommunications Advancement Foundation *Aug. 2013.*

Publications

Journal Papers

[1] Yuki Ito, Tomohiko Nakamura, Shoichi Koyama, Shuichi Sakamoto, and Hiroshi Saruwatari, "Spatial upsampling of head-related transfer function using neural network conditioned on source position and

frequency," *IEEE Open Journal of Signal Processing*, Sep. 2025.

[2] Yusaku Mizobuchi, Daichi Kitamura, Tomohiko Nakamura, Norihiro Takamune, Hiroshi Saruwatari, Yu Takahashi, and Kazunobu Kondo, "Music bleeding-sound reduction based on time-channel nonnegative matrix factorization," *APSIPA Transactions on Signal and Information Processing*, vol. 14, no. 1, e18, Jul. 2025.

[3] Yuto Ishikawa, Tomohiko Nakamura, Norihiro Takamune, Daichi Kitamura, Hiroshi Saruwatari, Yu Takahashi, and Kazunobu Kondo, "Real-time speech extraction based on rank-constrained spatial covariance matrix estimation and spatially regularized independent low-rank matrix analysis with fast demixing matrix estimation," *IEEE Access*, vol. 13, pp. 88683–88706, May 2025.

[4] Kanami Imamura, Tomohiko Nakamura, Kohei Yatabe, and Hiroshi Saruwatari, "Neural analog filter for sampling-frequency-independent convolutional layer," *APSIPA Transactions on Signal and Information Processing*, vol. 13, no. 1, e28, Nov. 2024.

[5] Takaaki Saeki, Shinnosuke Takamichi, Tomohiko Nakamura, Naoko Tanji, and Hiroshi Saruwatari, "SelfRemaster: Self-supervised speech restoration for historical audio resources," *IEEE Access*, vol. 11, pp. 144831–144843, Jan. 2024.

[6] Takuya Hasumi, Tomohiko Nakamura, Norihiro Takamune, Hiroshi Saruwatari, Daichi Kitamura, Yu Takahashi, and Kazunobu Kondo, "PoP-IDLMA: Product-of-prior independent deeply learned matrix analysis for multichannel music source separation," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 31, pp. 2680–2694, Jul. 2023.

[7] Koichi Saito, Tomohiko Nakamura, Kohei Yatabe, and Hiroshi Saruwatari, "Sampling-frequency-independent convolutional layer and its application to audio source separation," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 30, pp. 2928–2943, Sep. 2022.

[8] Tomohiko Nakamura, Shihori Kozuka, and Hiroshi Saruwatari, "Time-domain audio source separation with neural networks based on multiresolution analysis," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 29, pp. 1687–1701, Apr. 2021.

[9] Tomohiko Nakamura and Hirokazu Kameoka, "Harmonic-temporal factor decomposition for unsupervised monaural separation of harmonic sounds," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 29, pp. 68–82, Nov. 2020.

[10] Tomohiko Nakamura, Eita Nakamura, and Shigeki Sagayama, "Real-time audio-to-score alignment of music performances containing errors and arbitrary repeats and skips," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 24, no. 2, pp. 329–339, Feb. 2016.

[11] Tomohiko Nakamura, Yutaka Hori, and Shinji Hara, "Hierarchical modeling and local stability analysis for repressilators coupled by quorum sensing," *SICE Journal of Control, Measurement, and System Integration*, vol. 7, no. 3, pp. 133–140, May 2014.

[12] Eita Nakamura, Tomohiko Nakamura, Yasuyuki Saito, Nobutaka Ono, and Shigeki Sagayama, "Outer-product type hidden Markov model and polyphonic MIDI score following," *Journal of New Music Research*, vol. 43, pp. 183–201, Apr. 2014.

Peer-Reviewed International Conferences and Workshops

[1] Go Nishikawa, Wataru Nakata, Yuki Saito, Kanami Imamura, Hiroshi Saruwatari, and Tomohiko Nakamura, "Multi-sampling-frequency naturalness MOS prediction using self-supervised learning model with sampling-frequency-independent layer," in *Proceedings of IEEE Automatic Speech Recognition and Understanding Workshop*, Dec. 2025. (First and second authors contributed equally.)

[2] Rinka Nobukawa, Makito Kitamura, Tomohiko Nakamura, Shinnosuke Takamichi, and Hiroshi Saruwatari, "Drum-to-vocal percussion sound conversion and its evaluation methodology," in *Proceedings of Asia Pacific Signal and Information Processing Association Annual Summit and Conference*, Oct. 2025.

[3] Ryan Niu, Shoichi Koyama, and Tomohiko Nakamura, "Head-related transfer function individualization using anthropometric features and spatially independent latent representations," in *Proceedings of IEEE Workshop on Applications of Signal Processing to Audio and Acoustics*, Oct. 2025.

[4] Hitoshi Suda, Junya Koguchi, Shunsuke Yoshida, Tomohiko Nakamura, Fukayama Satoru, and Jun Ogata,

"IdolSongsJp corpus: A multi-singer song corpus in the style of Japanese idol groups," in *Proceedings of International Society for Music Information Retrieval Conference*, Sep. 2025.

[5] Kanami Imamura, Tomohiko Nakamura, Norihiro Takamune, Kohei Yatabe, and Hiroshi Saruwatari, "Local equivariance error-based metrics for evaluating sampling-frequency-independent property of neural network," in *Proceedings of European Signal Processing Conference*, Sep. 2025.

[6] Aogu Wada, Tomohiko Nakamura, and Saruwatari Hiroshi, "Hyperbolic embeddings for order-aware classification of audio effect chains," in *Proceedings of International Conference on Digital Audio Effects*, Sep. 2025.

[7] Tomohiko Nakamura, Kwanghee Choi, Keigo Hojo, Yoshiaki Bando, Satoru Fukayama, and Shinji Watanabe, "Discrete speech unit extraction via independent component analysis," in *Proceedings of SALMA: Speech and Audio Language Models - Architectures, Data Sources, and Training Paradigms, IEEE International Conference on Acoustics, Speech, and Signal Processing Workshops*, Apr. 2025.

[8] Yuto Ishikawa, Osamu Take, Tomohiko Nakamura, Norihiro Takamune, Yuki Saito, Shinnosuke Takamichi, and Hiroshi Saruwatari, "Real-time noise estimation for Lombard-effect speech synthesis in human–avatar dialogue systems," in *Proceedings of Asia Pacific Signal and Information Processing Association Annual Summit and Conference*, Dec. 2024.

[9] Hiroaki Hyodo, Shinnosuke Takamichi, Tomohiko Nakamura, Junya Koguchi, and Hiroshi Saruwatari, "DNN-based ensemble singing voice synthesis with interactions between singers," in *Proceedings of IEEE Spoken Language Technology Workshop*, Dec. 2024, pp. 660–667.

[10] Hitoshi Suda, Shunsuke Yoshida, Tomohiko Nakamura, Fukayama Satoru, and Jun Ogata, "FruitsMusic: A real-world corpus of Japanese idol-group songs," in *Proceedings of International Society for Music Information Retrieval Conference*, Nov. 2024.

[11] Kwanghee Choi, Ankita Pasad, Tomohiko Nakamura, Satoru Fukayama, Karen Livescu, and Shinji Watanabe, "Self-supervised speech representations are more phonetic than semantic," in *Proceedings of INTERSPEECH*, Sep. 2024, pp. 4578–4582.

[12] Yoshiaki Bando, Tomohiko Nakamura, and Shinji Watanabe, "Neural blind source separation and diarization for distant speech recognition," in *Proceedings of INTERSPEECH*, Sep. 2024, pp. 722–726.

[13] Yuto Ishikawa, Kohei Konaka, Tomohiko Nakamura, Norihiro Takamune, and Hiroshi Saruwatari, "Real-time speech extraction using spatially regularized independent low-rank matrix analysis and rank-constrained spatial covariance matrix estimation," in *Proceedings of Hands-Free Speech Communication and Microphone Arrays, IEEE International Conference on Acoustics, Speech, and Signal Processing Workshops*, Apr. 2024, pp. 730–734.

[14] Kanami Imamura, Tomohiko Nakamura, Norihiro Takamune, Kohei Yatabe, and Hiroshi Saruwatari, "Algorithms of sampling-frequency-independent layers for non-integer strides," in *Proceedings of European Signal Processing Conference*, Sep. 2023, pp. 326–330.

[15] Joonyong Park, Shinnosuke Takamichi, Tomohiko Nakamura, Kentaro Seki, Detai Xin, and Hiroshi Saruwatari, "How generative spoken language model encodes noisy speech: Investigation from phonetics to syntactics," in *Proceedings of INTERSPEECH*, Aug. 2023, pp. 1085–1089.

[16] Tomohiko Nakamura, Shinnosuke Takamichi, Naoko Tanji, Satoru Fukayama, and Hiroshi Saruwatari, "jaCappella corpus: A Japanese a cappella vocal ensemble corpus," in *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing*, Jun. 2023.

[17] Kota Arai, Yutaro Hirao, Takuji Narumi, Tomohiko Nakamura, Shinnosuke Takamichi, and Shigeo Yoshida, "TimToShape: Supporting practice of musical instruments by visualizing timbre with 2D shapes based on crossmodal correspondences," in *Proceedings of ACM Conference on Intelligent User Interfaces*, Mar. 2023, pp. 850–865.

[18] Futa Nakashima, Tomohiko Nakamura, Norihiro Takamune, Satoru Fukayama, and Hiroshi Saruwatari, "Hyperbolic timbre embedding for musical instrument sound synthesis based on variational autoencoders," in *Proceedings of Asia Pacific Signal and Information Processing Association Annual Summit and Conference*, Nov. 2022, pp. 736–743.

[19] Yuki Ito, Tomohiko Nakamura, Shoichi Koyama, and Hiroshi Saruwatari, "Head-related transfer function interpolation from spatially sparse measurements using autoencoder with source position conditioning," in *Proceedings of International Workshop on Acoustic Signal Enhancement*, Sep. 2022.

[20] Kazuhide Shigemi, Shoichi Koyama, Tomohiko Nakamura, and Hiroshi Saruwatari, "Physics-informed convolutional neural network with bicubic spline interpolation for sound field estimation," in *Proceedings of International Workshop on Acoustic Signal Enhancement*, Sep. 2022.

[21] Takaaki Saeki, Shinnosuke Takamichi, Tomohiko Nakamura, Naoko Tanji, and Hiroshi Saruwatari, "SelfRemaster: Self-supervised speech restoration with analysis-by-synthesis approach using channel modeling," in *Proceedings of INTERSPEECH*, Sep. 2022, pp. 4406–4410.

[22] Masaya Kawamura, Tomohiko Nakamura, Daichi Kitamura, Hiroshi Saruwatari, Yu Takahashi, and Kazunobu Kondo, "Differentiable digital signal processing mixture model for synthesis parameter extraction from mixture of harmonic sounds," in *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing*, May 2022, pp. 941–945.

[23] Takuya Hasumi, Tomohiko Nakamura, Norihiro Takamune, Hiroshi Saruwatari, Daichi Kitamura, Yu Takahashi, and Kazunobu Kondo, "Multichannel audio source separation with independent deeply learned matrix analysis using product of source models," in *Proceedings of Asia Pacific Signal and Information Processing Association Annual Summit and Conference*, Dec. 2021, pp. 1226–1233.

[24] Sota Misawa, Norihiro Takamune, Tomohiko Nakamura, Daichi Kitamura, Hiroshi Saruwatari, Masakazu Une, and Shoji Makino, "Speech enhancement by noise self-supervised rank-constrained spatial covariance matrix estimation via independent deeply learned matrix analysis," in *Proceedings of Asia Pacific Signal and Information Processing Association Annual Summit and Conference*, Dec. 2021, pp. 578–584.

[25] Yusaku Mizobuchi, Daichi Kitamura, Tomohiko Nakamura, Hiroshi Saruwatari, Yu Takahashi, and Kazunobu Kondo, "Prior distribution design for music bleeding-sound reduction based on nonnegative matrix factorization," in *Proceedings of Asia Pacific Signal and Information Processing Association Annual Summit and Conference*, Dec. 2021, pp. 651–658.

[26] Koichi Saito, Tomohiko Nakamura, Kohei Yatabe, Yuma Koizumi, and Hiroshi Saruwatari, "Sampling-frequency-independent audio source separation using convolution layer based on impulse invariant method," in *Proceedings of European Signal Processing Conference*, Aug. 2021, pp. 321–325.

[27] Naoki Narisawa, Rintaro Ikeshita, Norihiro Takamune, Daichi Kitamura, Tomohiko Nakamura, Hiroshi Saruwatari, and Tomohiro Nakatani, "Independent deeply learned tensor analysis for determined audio source separation," in *Proceedings of European Signal Processing Conference*, Aug. 2021, pp. 326–330.

[28] Takuya Hasumi, Tomohiko Nakamura, Norihiro Takamune, Hiroshi Saruwatari, Daichi Kitamura, Yu Takahashi, and Kazunobu Kondo, "Empirical bayesian independent deeply learned matrix analysis for multichannel audio source separation," in *Proceedings of European Signal Processing Conference*, Aug. 2021, pp. 331–335.

[29] Shihori Kozuka, Tomohiko Nakamura, and Hiroshi Saruwatari, "Investigation on wavelet basis function of DNN-based time domain audio source separation inspired by multiresolution analysis," in *Proceedings of International Congress and Exposition on Noise Control Engineering*, Aug. 2020, pp. 4013–4022.

[30] Tomohiko Nakamura and Hiroshi Saruwatari, "Time-domain audio source separation based on Wave-U-Net combined with discrete wavelet transform," in *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing*, May 2020, pp. 386–390.

[31] Tomohiko Nakamura and Hirokazu Kameoka, "Shifted and convolutive source-filter non-negative matrix factorization for monaural audio source separation," in *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing*, Mar. 2016, pp. 489–493.

[32] Tomohiko Nakamura and Hirokazu Kameoka, "Lp-norm non-negative matrix factorization and its application to singing voice enhancement," in *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing*, Apr. 2015, pp. 2115–2119.

[33] Tomohiko Nakamura, Kotaro Shikata, Norihiro Takamune, and Hirokazu Kameoka, "Harmonic-temporal factor decomposition incorporating music prior information for informed monaural source separation," in

Proceedings of International Society for Music Information Retrieval Conference, Oct. 2014, pp. 623–628.

[34] Tomohiko Nakamura and Hirokazu Kameoka, "Fast signal reconstruction from magnitude spectrogram of continuous wavelet transform based on spectrogram consistency," in *Proceedings of International Conference on Digital Audio Effects*, Sep. 2014, pp. 129–135.

[35] Takuya Higuchi, Hirofumi Takeda, Tomohiko Nakamura, and Hirokazu Kameoka, "A unified approach for underdetermined blind signal separation and source activity detection by multichannel factorial hidden Markov models," in *Proceedings of INTERSPEECH*, Sep. 2014, pp. 850–854.

[36] Tomohiko Nakamura, Hirokazu Kameoka, Kazuyoshi Yoshii, and Masataka Goto, "Timbre replacement of harmonic and drum components for music audio signals," in *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing*, May 2014, pp. 7520–7524.

[37] Takuya Higuchi, Norihiro Takamune, Tomohiko Nakamura, and Hirokazu Kameoka, "Underdetermined blind separation and tracking of moving sources based on DOA-HMM," in *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing*, May 2014, pp. 3215–3219.

[38] Tomohiko Nakamura, Eita Nakamura, and Shigeki Sagayama, "Acoustic score following to musical performance with errors and arbitrary repeats and skips for automatic accompaniment," in *Proceedings of Sound and Music Computing Conference*, Aug. 2013, pp. 299–304.

[39] Masahiro Nakano, Jonathan Le Roux, Hirokazu Kameoka, Tomohiko Nakamura, Nobutaka Ono, and Shigeki Sagayama, "Bayesian nonparametric spectrogram modeling based on infinite factorial infinite hidden Markov model," in *Proceedings of IEEE Workshop on Applications of Signal Processing to Audio and Acoustics*, Oct. 2011, pp. 325–328.

[40] Tomohiko Nakamura, Shinji Hara, and Yutaka Hori, "Local stability analysis for a class of quorum-sensing networks with cyclic gene regulatory networks," in *Proceedings of SICE Annual Conference*, Sep. 2011, pp. 2111–2116.

Invited Talks

[1] Tomohiko Nakamura, "Trends and prospects for audio source separation using deep learning," *Meeting on Technical Committee on Engineering Acoustics, IEICE*, Mar. 2025. (in Japanese)

[2] Daichi Kitamura, Tomohiko Nakamura, "Fundamentals and applications of audio source separation — A guide to becoming an expert," *2023 Otogaku Symposium*, Jun. 2023. (in Japanese)

[3] Tomohiko Nakamura, "Signal-processing-inspired deep learning," *IEEE NZ Signal Processing/Information Theory Joint Chapter in co-hosted by the Acoustics Research Centre, University of Auckland*, Dec. 2022.

[4] Tomohiko Nakamura, "Audio source separation combining wavelet transform and deep neural network," *Meeting on Technical Committee on Engineering Acoustics, IEICE*, Aug. 2022. (in Japanese)

Overview Papers

[1] Shoichi Koyama, Juliano Ribeiro, Tomohiko Nakamura, Natsuki Ueno, and Mirco Pezzoli, "Physics-informed machine learning for sound field estimation: Fundamentals, state of the art, and challenges," *Special Issue on Model-Based and Data-Driven Audio Signal Processing, IEEE Signal Processing Magazine*, vol. 41, pp. 60–71, 2024.

[2] Hirokazu Kameoka, Tomohiko Nakamura, and Norihiro Takamune, "Recent advances in music signal processing techniques," *The Journal of Institute of Electronics, Information and Communication Engineers*, vol. 98, no. 6, pp. 467–474, Jun. 2015. (in Japanese)

Patents

[1] Tomohiko Nakamura, "Object recognition device, method, and program," Japan Patent JP7349288, 13-Sep-2023.

[2] Tomohiko Nakamura, "Object recognition device, method, and program," Japan Patent JP7349290, 13-Sep-2023.

[3] Tomohiko Nakamura, "Trained model, training device, training method, and training program," Japan Patent JP7304235, 28-Jun-2023.

[4] Kota Arai, Yutaro Hirao, Takuji Narumi, Tomohiko Nakamura, Shinnosuke Takamichi, and Shigeo

Kadomura (Yoshida), "Information processing apparatus, information processing method, and information processing program," JP 2024-110900 A, 07-Jun-2023.

[5] Tomohiko Nakamura, Syohei Kunimatsu, Toshihiko Sakurai, and Ittoku Ohnishi, "Camera placement evaluation device, method, and program," Japan Patent JP7291013, 06-Jun-2023.

[6] Rintaro Ikeshita, Tomohiro Nakatani, Naoki Narisawa, Norihiro Takamune, Tomohiko Nakamura, and Hiroshi Saruwatari, "Signal processing device, method, and program," Japan Unexamined Patent JP2023-089431, 16-Dec-2021.

[7] Tomohiko Nakamura, "Object recognition device, method, and program," Japan Patent JP6773829, 05-Oct-2020.

[8] Tomohiko Nakamura, "Training device, method, and program for object recognition, and object recognition device," Japan Patent JP6773825, 05-Oct-2020.

[9] Tomohiko Nakamura, Tadahiko Ito, and Masaki Shimaoka, "Certificate management device," Japan Patent JP6647259, 05-Oct-2020.

[10] Tomohiko Nakamura, "Database integration device, method, and program, and data imputation device," Japan Patent JP6768101, 24-Sep-2020.

[11] Tomohiko Nakamura and Hirokazu Kameoka, "Vocal tract spectrum estimation device, method, and program," Japan Patent JP6420781, 19-Oct-2018.

Ph.D. Thesis

[1] Tomohiko Nakamura, "Source-Filter Representation and Phase Estimation in Continuous Wavelet Transform Domain for Monaural Music Audio Editing," *Ph.D. Thesis, The University of Tokyo,* Mar. 2016.

Awards

1. The Awaya Kiyoshi Research Award, ASJ, Mar. 2024.
2. The Itakura Prize Innovative Young Researcher Award, ASJ, Mar. 2022.
3. 2021 Encouragement Award, Foundation of the Promotion of Engineering Research, Jul. 2021.
4. 2021 Otogaku Symposium Best Presentation Award, Jun. 2021.
5. IPSJ Recommended Ph.D. Thesis, Aug. 2016.
6. Dean's Award of Graduate School of Information Science and Technology, The University of Tokyo, Mar. 2016.
7. IPSJ Yamashita SIG Research Award, Mar. 2016.
8. SICE Best Paper Award (Takeda Award), Oct. 2015.
9. 2015 Otogaku Symposium Award, May 2015.
10. Best Student Presentation Award from ASJ, Mar. 2014.
11. IPSJ Certificate of Excellent Master's Thesis, Mar. 2013.
12. Student Encouragement Award of IPSJ National Convention, Mar. 2013.
13. SICE Annual Conference 2011 International Award, Sept. 2011.
14. SICE Annual Conference 2011 Finalist of Young Author Award, Sept. 2011.

Academic Activities

Jun. 2023–Jun. 2027: Associate Editor, the IEICE Transactions on Information and Systems (Japanese Edition)

Jun. 2023–Jun. 2025: Committee Member, the IEICE Technical Group on Engineering Acoustics

Apr. 2023–Jun. 2025: Secretary, the IPSJ Special Interest Group on Music and Computer

Mar. 2023–Nov. 2023: Program committee, the International Symposium on Computer Music Multidisciplinary Research 2023

Nov. 2021–Mar. 2027: Secretary, the ASJ Student and Young Researchers Forum

Apr. 2017–Mar. 2021: Committee Member, the IPSJ Special Interest Group on Music and Computer