

Daichi KITAMURA

PERSONAL DATA

PLACE AND DATE OF BIRTH: Japan | 11th March 1990
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EDUCATIONAL BACKGROUND

- MAR 2017 Ph.D. degree in Informatics, School of Multidisciplinary Sciences, Department of Informatics, **SOKEIDAI (The Graduate University for Advanced Studies)**, Japan
- MAR 2014 M.S. degree in Engineering, Graduate school of Information Science, **Nara Institute of Science and Technology (NAIST)**, Japan
- MAR 2012 B.S. degree in Engineering, Advanced Course in Industrial and Systems Engineering, **National Institute of Technology (NIT), Kagawa Collage**, Japan
- MAR 2010 Foundation degree of Engineering, Department of Electrical and Computer Engineering, **National Institute of Technology (NIT), Kagawa Collage**, Japan

RESEARCH & WORK EXPERIENCES

- APR 2018–*Current* | Assistant Professor of DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING, NATIONAL INSTITUTE OF TECHNOLOGY, KAGAWA COLLEGE, Japan
Proper position
- APR 2018–*Current* | Visiting Researcher of DEPARTMENT OF INFORMATION PHYSICS AND COMPUTING, GRADUATE SCHOOL OF INFORMATION SCIENCE AND TECHNOLOGY, THE UNIVERSITY OF TOKYO, Japan
System #1 Laboratory (Saruwatari and Koyama Lab.)
- APR 2017–MAR 2018 | Project Research Associate of DEPARTMENT OF INFORMATION PHYSICS AND COMPUTING, GRADUATE SCHOOL OF INFORMATION SCIENCE AND TECHNOLOGY, THE UNIVERSITY OF TOKYO, Japan
System #1 Laboratory (Saruwatari Lab.)
- APR 2017–SEP 2017 | Part-Time Lecturer of DEPARTMENT OF HUMAN ENVIRONMENT DESIGN, FACULTY OF HUMAN LIFE DESIGN, TOYO UNIVERSITY, Japan
Lecture: Information Literacy I
- APR 2014–MAR 2017 | Research Fellow (DC1) of JAPAN SOCIETY OF THE PROMOTION OF SCIENCE (JSPS), Japan
Theme: “Multidimensional Sound Media Processing and Its Application to Sound Augmented Reality Based on Sparse Signal Decomposition”
- MAY 2015–FEB 2017 | Research Assistant with Superordinate Wages of RESEARCH ORGANIZATION OF INFORMATION AND SYSTEMS (ROIS), Japan
Recognized as a super research assistant who has expert knowledge in his/her research.
- MAY 2014–APR 2015 | Research Assistant of RESEARCH ORGANIZATION OF INFORMATION AND SYSTEMS (ROIS), Japan
Recognized as a general research assistant.
- JUN–AUG 2013 | Teaching Assistant of GRADUATE SCHOOL OF INFORMATION SCIENCE, NARA INSTITUTE OF SCIENCE AND TECHNOLOGY (NAIST), Japan
Lecture: *Speech Processing*

VOLUNTEER WORKS

- JUL 2017–Current | Organizing Committee of 16TH INTERNATIONAL WORKSHOP ON ACOUSTIC SIGNAL ENHANCEMENT (IWAENC 2018), Japan
Local Arrangement
- MAR 2014–Current | Students and Young Researchers Forum of THE ACOUSTICAL SOCIETY OF JAPAN (ASJ), Japan
Recognized as an official organization of ASJ.
- JAN 2016–FEB 2017 | Evaluation Organizing Committee Member of SIXTH COMMUNITY-BASED SIGNAL SEPARATION EVALUATION CAMPAIGN (SiSEC 2016)
SiSEC 2016 is an international competition for signal separation and was jointly held with *LVA/ICA 2017*.
- SEP 2014–SEP 2015 | Evaluation Organizing Committee Member of FIFTH COMMUNITY-BASED SIGNAL SEPARATION EVALUATION CAMPAIGN (SiSEC 2015)
SiSEC 2015 is an international competition for signal separation and was jointly held with *LVA/ICA 2015*.

RESEARCH INTERESTS

Audio signal processing, statistical signal processing, machine learning, acoustic engineering, optimization

AWARDS

- MAR 2017 | The Telecom System Technology Award (Encouragement Award), THE TELECOMMUNICATION ADVANCEMENT FOUNDATION (TAF)
- MAR 2017 | The 13th Itakura Prize Innovative Young Researcher Award, THE ACOUSTICAL SOCIETY OF JAPAN (ASJ)
- NOV 2017 | Best Paper Award, IEEE SIGNAL PROCESSING SOCIETY (SPS) JAPAN
- SEP 2017 | FY2016 22nd Nagakura Research Incentive Award, SOKENDAI (THE GRADUATE UNIVERSITY FOR ADVANCED STUDIES)
- JUL 2017 | 21st Annual Best of Computing Notable Books and Articles in Computing of 2016, ACM COMPUTING REVIEWS
- JAN 2017 | Seventh (FY2016) Ikushi Prize, JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE (JSPS)
- MAR 2016 | The Telecom System Technology Student Award, THE TELECOMMUNICATION ADVANCEMENT FOUNDATION (TAF)
- NOV 2015 | Student Conference Paper Award, IEEE SIGNAL PROCESSING SOCIETY (SPS) JAPAN CHAPTER
- SEP 2015 | 2015 The 1st Best Student Award, NATIONAL INSTITUTE OF INFORMATICS (NII)
- MAR 2015 | The 37th Awaya Prize Young Researcher Award, THE ACOUSTICAL SOCIETY OF JAPAN (ASJ)
- NOV 2014 | 2013 Technical Group on Signal Processing Young Researcher's Award, THE INSTITUTE OF ELECTRONICS, INFORMATION AND COMMUNICATION ENGINEERS (IEICE)
- MAY 2014 | Total Exemption from Repayment of Scholarship Loan for Students with Outstanding Results, JAPAN STUDENT SERVICES ORGANIZATION (JASSO)
- MAR 2014 | Master's Best Student Award, NARA INSTITUTE OF SCIENCE AND TECHNOLOGY (NAIST)
- MAR 2014 | NCSP'14 Student Paper Award, 2014 RISP INTERNATIONAL WORKSHOP ON NONLINEAR CIRCUITS, COMMUNICATIONS AND SIGNAL PROCESSING (NCSP 2014)
- NOV 2013 | The 8th Student Presentation Award, THE ACOUSTICAL SOCIETY OF JAPAN (ASJ)
- MAR 2010 | The Best Graduation Research Award, DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING, TAKAMATSU NATIONAL COLLEGE OF TECHNOLOGY (TNCT)
- MAR 2010 | Engineers Encouragement Award, THE SHIKOKU SECTION OF THE INSTITUTE OF ELECTRONICS, INFORMATION AND COMMUNICATION ENGINEERS (IEICE)

COMPETITIVE FUNDS

- AUG 2017 JSPS Grant-in-Aid for Research Activity start-up (KAKENHI), "Extended theories of audio source separation based on statistical independence and various mathematical structures (Grant No. 17H06572)", JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE (JSPS)
- JUN 2015 Grants for Researchers Attending International Conferences, THE TELECOMMUNICATIONS ADVANCEMENT FOUNDATION (TAF)
- MAY 2014 Grant-in-Aid for JSPS Fellows, JAPAN SOCIETY OF THE PROMOTION OF SCIENCE (JSPS)
- APR 2014 Research Fellowship for Young Scientists (DC1), JAPAN SOCIETY OF THE PROMOTION OF SCIENCE (JSPS)
- APR 2013 Grants for Researchers Attending International Conferences, NEC C&C FOUNDATION

LANGUAGES

JAPANESE: Native
ENGLISH: Conversant

COMPUTER SKILLS

Programming: C, MATLAB, PYTHON
Hardware Description: VERILOG HDL
Web Design: HTML, CSS
Other: \LaTeX , Excel, Word, PowerPoint, IGOR

PUBLICATIONS

Book Chapters

1. **Daichi Kitamura**, Nobutaka Ono, Hiroshi Sawada, Hirokazu Kameoka, and Hiroshi Saruwatari, "Determined blind source separation with independent low-rank matrix analysis," *Audio Source Separation. Signals and Communication Technology*, Shoji Makino, Ed. Springer, Cham, pp. 125-155, March 2018.
2. **Daichi Kitamura**, "Q11 What is beamforming?," *Acousticpedia for Beginners*, Acoustical Society of Japan, Eds. Corona Publishing, pp. 44-47, March 2017 (in Japanese).

Journal Papers

1. **Daichi Kitamura**, Shinichi Mogami, Yoshiki Mitsui, Norihiro Takamune, Hiroshi Saruwatari, Nobutaka Ono, Yu Takahashi, and Kazunobu Kondo, "Generalized independent low-rank matrix analysis using heavy-tailed distributions for blind source separation," *EURASIP Journal on Advances in Signal Processing*, vol. 2018, no. 1, p. 28, May, 2018.
2. Yoshiaki Bando, Hiroshi Saruwatari, Nobutaka Ono, Shoji Makino, Katustoshi Itoyama, **Daichi Kitamura**, Masaru Ishimura, Moe Takakusaki, Narumi Mae, Kouei Yamaoka, Yutaro Matsui, Yuichi Ambe, Masashi Konyo, Satoshi Tadokoro, Kazuyoshi Yoshii, and Hiroshi G. Okuno, "Low-latency and high-quality two-stage human-voice-enhancement system for a hose-shaped rescue robot," *Journal of Robotics and Mechatronics*, vol. 29, no. 1, pp.198-212, February 2017.
3. **Daichi Kitamura**, Nobutaka Ono, Hiroshi Sawada, Hirokazu Kameoka, and Hiroshi Saruwatari, "Determined blind source separation unifying independent vector analysis and nonnegative matrix factorization," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 24, no. 9, pp. 1626-1641, September, 2016.
4. **Daichi Kitamura**, Hiroshi Saruwatari, Hirokazu Kameoka, Yu Takahashi, Kazunobu Kondo, and Satoshi Nakamura, "Multichannel signal separation combining directional clustering and nonnegative matrix factorization with spectrogram restoration," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 23, no. 4, pp. 654-669, April 2015.

5. Tomo Miyauchi, **Daichi Kitamura**, Hiroshi Saruwatari, and Satoshi Nakamura, "Depth estimation of sound images using directional clustering and activation-shared nonnegative matrix factorization," *Journal of Signal Processing*, vol. 18, no. 4, pp. 217-220, July 2014 (corresponding author).
6. **Daichi Kitamura**, Hiroshi Saruwatari, Kosuke Yagi, Kiyohiro Shikano, Yu Takahashi, and Kazunobu Kondo, "Music signal separation based on supervised nonnegative matrix factorization with orthogonality and maximum-divergence penalties," *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, vol. E97-A, no. 5, pp. 1113-1118, May 2014.
7. Masahiro Harazono, **Daichi Kitamura**, and Masashi Nakayama, "Humbucking pickup response excited by string vibration," *Acoustical Science and Technology*, vol. 33, no. 5, pp. 301-309, 2012.

Peer-Reviewed International Conference Proceedings

1. Shinnosuke Takamichi, Yuki Saito, Norihiro Takamune, **Daichi Kitamura**, and Hiroshi Saruwatari, "Phase reconstruction from amplitude spectrograms based on von-Mises-distribution deep neural network," *Proceedings of International Workshop on Acoustic Signal Enhancement (IWAENC 2018)*, Tokyo, Japan, September 2018 (accepted).
2. Shinichi Mogami, Hayato Sumino, **Daichi Kitamura**, Norihiro Takamune, Shinnosuke Takamichi, Hiroshi Saruwatari, and Nobutaka Ono, "Independent deeply learned matrix analysis for multichannel audio source separation," *Proceedings of European Signal Processing Conference (EUSIPCO 2018)*, pp. 1571-1575, Roma, Italy, September, 2018.
3. Kohei Yatabe and **Daichi Kitamura**, "Determined blind source separation via proximal splitting algorithm," *Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2018)*, pp. 776-780, Calgary, Canada, April, 2018.
4. Yoshiki Mitsui, Norihiro Takamune, **Daichi Kitamura**, Hiroshi Saruwatari, Yu Takahashi, and Kazunobu Kondo, "Vectorwise coordinate descent algorithm for spatially regularized independent low-rank matrix analysis," *Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2018)*, pp. 746-750, Calgary, Canada, April, 2018.
5. Narumi Mae, Koei Yamaoka, Yoshiki Mitsui, Mitsuo Matsumoto, Shoji Makino, **Daichi Kitamura**, Nobutaka Ono, Takeshi Yamada, and Hiroshi Saruwatari, "Ego noise reduction and sound localization adapted to human ears using hose-shaped rescue robot," *Proceedings of RISP International Workshop on Nonlinear Circuits, Communications and Signal Processing (NCSP 2018)*, pp. 371-374, Hawaii, USA, March 2018.
6. Moe Takakusaki, **Daichi Kitamura**, Nobutaka Ono, Shoji Makino, Takeshi Yamada, and Hiroshi Saruwatari, "Ego-noise reduction for hose-shaped rescue robot using basis-shared semi-supervised independent low-rank matrix analysis," *Proceedings of RISP International Workshop on Nonlinear Circuits, Communications and Signal Processing (NCSP 2018)*, pp. 351-354, Hawaii, USA, March 2018 (Student Paper Award).
7. Narumi Mae, Yoshiki Mitsui, Shoji Makino, **Daichi Kitamura**, Nobutaka Ono, Takeshi Yamada, and Hiroshi Saruwatari, "Sound source localization using binaural different for hose-shaped rescue robot," *Proceedings of Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC 2017)*, Kuala Lumpur, Malaysia, December, 2017.
8. Yoshiki Mitsui, **Daichi Kitamura**, Norihiro Takamune, Hiroshi Saruwatari, Yu Takahashi, and Kazunobu Kondo, "Independent low-rank matrix analysis based on parametric majorization-equalization algorithm," *Proceedings of IEEE International Workshop on Computational Advances in Multi-Sensor Adaptive Processing (CAMSAP 2017)*, pp. 98-102, Curaçao, Dutch Antilles, December, 2017.
9. Sinichi Mogami, **Daichi Kitamura**, Yoshiki Mitsui, Norihiro Takamune, Hiroshi Saruwatari, and Nobutaka Ono, "Independent low-rank matrix analysis based on complex Student's t -distribution for blind audio source separation," *Proceedings of IEEE International Workshop on Machine Learning for Signal Processing (MLSP 2017)*, Tokyo, Japan, September, 2017.
10. **Daichi Kitamura**, Nobutaka Ono, and Hiroshi Saruwatari, "Experimental analysis of optimal window length for independent low-rank matrix analysis," *Proceedings of The 2017 European Signal Processing Conference (EUSIPCO 2017)*, pp. 1210-1214, Kos, Greece, August 2017 (Invited Special Session).
11. Yoshiki Mitsui, **Daichi Kitamura**, Shinnosuke Takamichi, Nobutaka Ono, and Hiroshi Saruwatari, "Blind source separation based on independent low-rank matrix analysis with sparse regularization for time-

- series activity,” *Proceedings of The 42nd IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2017)*, pp. 21–25, New Orleans, U.S.A., March, 2017 (Student Paper Contest Finalist).
12. Antoine Liutkus, Fabian-Robert Stöter, Zafar Rafii, **Daichi Kitamura**, Bertrand Rivet, Nobutaka Ito, Nobutaka Ono, and Julie Fontecave, “The 2016 signal separation evaluation campaign,” *Proceedings of 13th International Conference on Latent Variable Analysis and Signal Separation (LVA/ICA 2017)*, pp. 323–332, Grenoble, France, February, 2017.
 13. Narumi Mae, Masaru Ishimura, **Daichi Kitamura**, Nobutaka Ono, Takeshi Yamada, Shoji Makino, and Hiroshi Saruwatari, “Ego noise reduction for hose-shaped rescue robot combining independent low-rank matrix analysis and multichannel noise cancellation,” *Proceedings of 13th International Conference on Latent Variable Analysis and Signal Separation (LVA/ICA 2017)*, pp. 141–151, Grenoble, France, February, 2017.
 14. Narumi Mae, **Daichi Kitamura**, Masaru Ishimura, Takeshi Yamada, and Shoji Makino, “Ego noise reduction for hose-shaped rescue robot combining independent low-rank matrix analysis and noise cancellation,” *Proceedings of Asia-Pacific Signal and Information Process Processing Association Annual Summit and Conference (APSIPA ASC 2016)*, Jeju, Korea, December 2016.
 15. Hiroaki Nakajima, **Daichi Kitamura**, Norihiro Takamune, Shoichi Koyama, Hiroshi Saruwatari, Yu Takahashi, and Kazunobu Kondo, “Audio signal separation using supervised NMF with time-variant all-pole-model-based basis deformation,” *Proceedings of Asia-Pacific Signal and Information Process Processing Association Annual Summit and Conference (APSIPA ASC 2016)*, Jeju, Korea, December 2016.
 16. **Daichi Kitamura** and Nobutaka Ono, “Efficient initialization for nonnegative matrix factorization based on nonnegative independent component analysis,” *Proceedings of The 15th International Workshop on Acoustic Signal Enhancement (IWAENC 2016)*, Xi’an, China, September 2016 (Student Paper Competition Finalist).
 17. **Daichi Kitamura**, Nobutaka Ono, Hiroshi Saruwatari, Yu Takahashi, and Kazunobu Kondo, “Discriminative and reconstructive basis training for audio source separation with semi-supervised nonnegative matrix factorization,” *Proceedings of The 15th International Workshop on Acoustic Signal Enhancement (IWAENC 2016)*, Xi’an, China, September 2016.
 18. Moe Takakusaki, **Daichi Kitamura**, Nobutaka Ono, Takeshi Yamada, Shoji Makino, and Hiroshi Saruwatari, “Ego-noise reduction for a hose-shaped rescue robot using determined rank-1 multichannel nonnegative matrix factorization,” *Proceedings of The 15th International Workshop on Acoustic Signal Enhancement (IWAENC 2016)*, Xi’an, China, September 2016.
 19. Hiroaki Nakajima, **Daichi Kitamura**, Norihiro Takamune, Shoichi Koyama, Hiroshi Saruwatari, Nobutaka Ono, Yu Takahashi, and Kazunobu Kondo, “Music signal separation using supervised NMF with all-pole-model-based discriminative basis deformation,” *Proceedings of The 2016 European Signal Processing Conference (EUSIPCO 2016)*, pp. 1143–1147, Budapest, Hungary, September 2016.
 20. **Daichi Kitamura**, Nobutaka Ono, Hiroshi Sawada, Hirokazu Kameoka, and Hiroshi Saruwatari, “Relaxation of rank-1 spatial constraint in overdetermined blind source separation,” *Proceedings of The 2015 European Signal Processing Conference (EUSIPCO 2015)*, pp. 1271–1275, Nice, France, September 2015 (Invited Special Session).
 21. Nobutaka Ono, Zafar Rafii, **Daichi Kitamura**, Nobutaka Ito, and Antoine Liutkus, “The 2015 signal separation evaluation campaign,” *Proceedings of 12th International Conference on Latent Variable Analysis and Signal Separation (LVA/ICA 2015)*, Liberec, Czech, August 2015.
 22. **Daichi Kitamura**, Nobutaka Ono, Hiroshi Sawada, Hirokazu Kameoka, and Hiroshi Saruwatari, “Efficient multichannel nonnegative matrix factorization exploiting rank-1 spatial model,” *Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2015)*, pp. 276–280, Brisbane, Australia, April 2015.
 23. Yuki Murota, **Daichi Kitamura**, Shoichi Koyama, Hiroshi Saruwatari, Satoshi Nakamura, “Statistical modeling of binaural signal and its application to binaural source separation,” *Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2015)*, pp. 494–498, Brisbane, Australia, April 2015.
 24. **Daichi Kitamura**, Hiroshi Saruwatari, Satoshi Nakamura, Yu Takahashi, Kazunobu Kondo, and Hirokazu Kameoka, “Hybrid multichannel signal separation using supervised nonnegative matrix fac-

- torization with spectrogram restoration,” *Proceedings of Asia-Pacific Signal and Information Processing Association Annual Summit and Conference 2014 (APSIPA 2014)*, Siem Reap, Cambodia, December 2014 (Invited Special Session).
25. **Daichi Kitamura**, Hiroshi Saruwatari, Satoshi Nakamura, Yu Takahashi, Kazunobu Kondo, and Hirokazu Kameoka, “Divergence optimization in nonnegative matrix factorization with spectrogram restoration for multichannel signal separation,” *Proceedings of 4th Joint Workshop on Hands-free Speech Communication and Microphone Arrays (HSCMA 2014)*, pp. 92–96, Nancy, France, May 2014.
 26. Yuki Murota, **Daichi Kitamura**, Hiroshi Saruwatari, Satoshi Nakamura, Yu Takahashi, and Kazunobu Kondo, “Music signal separation based on Bayesian spectral amplitude estimator with automatic target prior adaptation,” *Proceedings of IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2014)*, pp. 7540–7544, Frolence, Italy, May 2014.
 27. **Daichi Kitamura**, Hiroshi Saruwatari, Satoshi Nakamura, Yu Takahashi, Kazunobu Kondo, and Hirokazu Kameoka, “Online divergence switching for superresolution-based nonnegative matrix factorization,” *Proceedings of 2014 RISP International Workshop on Nonlinear Circuits, Communications and Signal Processing (NCSP 2014)*, pp. 485–488, Hawaii, USA, March 2014 (Student Paper Award).
 28. Tomo Miyauchi, **Daichi Kitamura**, Hiroshi Saruwatari, and Satoshi Nakamura, “Depth estimation of sound images using directional clustering and activation-shared nonnegative matrix factorization,” *Proceedings of 2014 RISP International Workshop on Nonlinear Circuits, Communications and Signal Processing (NCSP 2014)*, pp. 437–440, Hawaii, USA, March 2014 (Student Paper Award).
 29. **Daichi Kitamura**, Hiroshi Saruwatari, Kosuke Yagi, Kiyohiro Shikano, Yu Takahashi, and Kazunobu Kondo, “Robust music signal separation based on supervised nonnegative matrix factorization with prevention of basis sharing,” *Proceedings of IEEE International Symposium on Signal Processing and Information Technology (ISSPIT 2013)*, pp. 392–397, Athens, Greece, December 2013.
 30. **Daichi Kitamura**, Hiroshi Saruwatari, Kiyohiro Shikano, Kazunobu Kondo, and Yu Takahashi, “Music signal separation by supervised nonnegative matrix factorization with basis deformation,” *Proceedings of IEEE 18th International Conference on Digital Signal Processing (DSP 2013)*, Santorini, Greece, July 2013.
 31. **Daichi Kitamura**, Hiroshi Saruwatari, Yusuke Iwao, Kiyohiro Shikano, Kazunobu Kondo, and Yu Takahashi, “Superresolution-based stereo signal separation via supervised nonnegative matrix factorization,” *Proceedings of IEEE 18th International Conference on Digital Signal Processing (DSP 2013)*, Santorini, Greece, July 2013.
 32. **Daichi Kitamura**, Hiroshi Saruwatari, Kiyohiro Shikano, Kazunobu Kondo, and Yu Takahashi, “Regularized superresolution-based binaural signal separation with nonnegative matrix factorization,” *Proceedings of 5th International Conference on 3D Systems and Applications (3DSA 2013)*, Osaka, Japan, June 2013.

PATENTS

1. **Daichi Kitamura**, Hiroaki Nakajima, Hiroshi Saruwatari, Nobutaka Ono, Yu Takahashi, Kazunobu Kondo, Japanese Unexamined Patent, Application No. 2016-032489 (submitted on February 23rd, 2016).
2. **Daichi Kitamura**, Hiroshi Saruwatari, and Yu Takahashi, Japanese Unexamined Patent, Application No. 2013-094475 (submitted on April 26th, 2013), and Publication No. 2014-215544 (published on November 17th, 2014).
3. **Daichi Kitamura**, Hiroshi Saruwatari, and Yu Takahashi, Japanese Unexamined Patent, Application No. 2013-004375 (submitted on January 15th, 2013), and Publication No. 2014-137389 (published on July 28th, 2014).

MISCELLANEOUS WORKS

1. Hiroshi Sawada, Nobutaka Ono, Hirokazu Kameoka, **Daichi Kitamura**, “Tutorial T-1 Blind audio source separation on tensor representation,” *2018 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2018)*, April 16th, 2018.

2. **Daichi Kitamura**, “Blind source separation based on independent low-rank matrix analysis and its extensions,” *Ohio State University, Invited Lecture*, December 15th, 2017.
3. **Daichi Kitamura**, “Dataset: songKitamura,” *Dataset for Evaluation of Music Source Separation*, October 13th, 2017.
4. **Daichi Kitamura**, “Acoustic modeling in audio source separation,” *The Acoustical Society of Japan, Summer Seminar, Invited Talk*, September 11th, 2017.
5. **Daichi Kitamura**, “Q. Why does a pickup affect on the tone of electric guitars?,” *The Journal of the Acoustical Society of Japan (ASJ), Coffee Break, Q&A Corner*, vol. 73, no. 9, September, 2017 (in Japanese).
6. **Daichi Kitamura**, “Blind source separation based on independent low-rank matrix analysis and its extension to Student’s t -distribution,” *Télécom ParisTech, Invited Lecture*, September 4th, 2017.
7. **Daichi Kitamura**, “Audio source separation based on low-rank structure and statistical independence,” *Nagoya University, Invited Lecture*, May 30th, 2017.
8. **Daichi Kitamura**, “Effective optimization algorithms for blind and supervised music source separation with nonnegative matrix factorization,” *SOKENDAI (The Graduate University for Advanced Studies), Doctoral Dissertation*, March, 2017.
9. **Daichi Kitamura**, “History of independence-based blind source separation and independent low-rank matrix analysis,” *The University of Tokyo, Department of Information Physics and Computing, Invited Talk*, Tokyo, February 27th, 2017.
10. **Daichi Kitamura**, “Blind source separation based on statistical independence and low-rank matrix decomposition –Independent low-rank matrix analysis–,” *University of Tsukuba, Graduate School of Systems and Information Engineering, Multimedia Laboratory, Invited Talk*, Ibaraki, September 26th, 2016.
11. **Daichi Kitamura**, “Algorithms for independent low-rank matrix analysis,” *Supporting document*, August, 2016.
12. **Daichi Kitamura**, “Blind source separation based on independent low-rank matrix analysis,” *Speech PhD Summit 2016, Google inc. London, Invited Poster Presentation*, London, UK, Jun 15th, 2016.
13. **Daichi Kitamura**, Nobutaka Ono, “How can we listen only vocal or guitar sound from music? Mechanism in source separation and its capability,” *2016 National Institute of Informatics (NII) Open House*, no. E02, Tokyo, May, 2016.
14. **Daichi Kitamura**, “History of independent component analysis for sound media signal processing and its applications,” *Hitotsubashi University, Graduate School of International Corporate Strategy, MBA Program in Financial Strategy, Faculty Seminar, Invited Talk*, Tokyo, February 8th, 2016.
15. **Daichi Kitamura**, “Sound media signal processing for music,” *7th Hokuriku Union Acoustic Seminar, Beginner’s Meeting, Invited Talk*, Kanagawa, December 13th, 2015.
16. **Daichi Kitamura**, “Generative model in nonnegative matrix factorization and its application to multichannel sound source separation,” *Keio University, Science and Technology, Department of Electronics and Electrical Engineering, Yukawa Laboratory, Invited Talk*, Kanagawa, November 24th, 2015.
17. **Daichi Kitamura**, Nobutaka Ono, Hiroshi Sawada, Hirokazu Kameoka, Hiroshi Saruwatari, “How can we listen only vocal or guitar sound from music? Music source separation using nonnegative matrix factorization,” *2015 National Institute of Informatics (NII) Open House*, no. E02, Tokyo, June, 2015.