

# 2019 Index

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This index covers all technical items—papers, correspondence, reviews, etc.—that appeared in this periodical during 2019, and items from previous years that were commented upon or corrected in 2019. Departments and other items may also be covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the item under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Note that the item title is found only under the primary entry in the Author Index.

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**Iqbal, T.**, see Kong, Q., *TASLP Nov. 2019 1791-1802*  
**Itoyama, K.**, see Shimada, K., *TASLP May 2019 960-971*  
**Iturriet, F.P.**, and Costa, M.H., Perceptually Relevant Preservation of Interaural Time Differences in Binaural Hearing Aids; *TASLP April 2019 753-764*  
**Iyer, A.**, see Payal, S.S., *TASLP June 2019 1072-1084*

## J

**Jackson, P.J.B.**, see Remaggi, L., *TASLP Dec. 2019 2263-2277*  
**Jahromi, M.Z.**, Zahedi, A., Jensen, J., and Ostergaard, J., Information Loss in the Human Auditory System; *TASLP March 2019 472-481*  
**Jancovic, P.**, and Kokuer, M., Bird Species Recognition Using Unsupervised Modeling of Individual Vocalization Elements; *TASLP May 2019 932-947*  
**Jati, A.**, and Georgiou, P., Neural Predictive Coding Using Convolutional Neural Networks Toward Unsupervised Learning of Speaker Characteristics; *TASLP Oct. 2019 1577-1589*  
**Jensen, J.**, see Amini, J., *TASLP Jan. 2019 154-167*  
**Jensen, J.**, see Koutrouvelis, A.I., *TASLP Feb. 2019 321-331*  
**Jensen, J.**, see Kolbaek, M., *TASLP Feb. 2019 283-295*  
**Jensen, J.**, see Jahromi, M.Z., *TASLP March 2019 472-481*  
**Jensen, J.**, see Koutrouvelis, A.I., *TASLP July 2019 1136-1150*  
**Jensen, J.R.**, see Hansen, M.W., *TASLP Feb. 2019 296-310*  
**Jensen, J.R.**, see Shi, L., *TASLP Nov. 2019 1737-1751*  
**Jiang, J.**, see Yu, J., *TASLP Jan. 2019 168-177*  
**Jiang, J.**, see Lan, Y., *TASLP Oct. 2019 1629-1638*  
**Jiang, Y.**, see Zhang, J., *TASLP March 2019 631-644*  
**Jing, L.**, see Deng, D., *TASLP April 2019 704-718*  
**Jing, L.**, see Deng, D., *TASLP Nov. 2019 1777-1790*  
**Juvela, L.**, Bollepalli, B., Tsiaras, V., and Alku, P., GlotNet—A Raw Waveform Model for the Glottal Excitation in Statistical Parametric Speech Synthesis; *TASLP June 2019 1019-1030*

## K

**Kamamoto, Y.**, see Sugiura, R., *TASLP Dec. 2019 2234-2248*

- Kameoka, H.**, Kaneko, T., Tanaka, K., and Hojo, N., ACVAE-VC: Non-Parallel Voice Conversion With Auxiliary Classifier Variational Autoencoder; *TASLP Sept. 2019 1432-1443*
- Kamkar-Parsi, H.**, see As'ad, H., *TASLP Oct. 2019 1549-1563*
- Kamper, H.**, Shakhnarovich, G., and Livescu, K., Semantic Speech Retrieval With a Visually Grounded Model of Untranscribed Speech; *TASLP Jan. 2019 89-98*
- Kaneko, T.**, see Kameoka, H., *TASLP Sept. 2019 1432-1443*
- Kang, H.**, see Lee, J., *TASLP June 2019 1098-1108*
- Kato, A.**, and Kinnunen, T.H., Statistical Regression Models for Noise Robust F0 Estimation Using Recurrent Deep Neural Networks; *TASLP Dec. 2019 2336-2349*
- Katz, O.**, see Barkan, O., *TASLP Dec. 2019 2385-2396*
- Kavalekalam, M.S.**, Nielsen, J.K., Boldt, J.B., and Christensen, M.G., Model-Based Speech Enhancement for Intelligibility Improvement in Binaural Hearing Aids; *TASLP Jan. 2019 99-113*
- Kawachi, Y.**, see Koizumi, Y., *TASLP Jan. 2019 212-224*
- Kawahara, T.**, see Shimada, K., *TASLP May 2019 960-971*
- Kawahara, T.**, see Sekiguchi, K., *TASLP Dec. 2019 2197-2212*
- Kim, D.**, see Parshakova, T., *TASLP Nov. 2019 1713-1724*
- Kinnunen, T.H.**, see Kato, A., *TASLP Dec. 2019 2336-2349*
- Kitamura, D.**, see Makishima, N., *TASLP Oct. 2019 1601-1615*
- Kleijn, W.B.**, see Chua, J., *TASLP Aug. 2019 1280-1294*
- Kobayashi, T.**, see Koriyama, T., *TASLP May 2019 948-959*
- Koenigstein, N.**, see Barkan, O., *TASLP Dec. 2019 2385-2396*
- Koizumi, Y.**, Saito, S., Uematsu, H., Kawachi, Y., and Harada, N., Unsupervised Detection of Anomalous Sound Based on Deep Learning and the Neyman-Pearson Lemma; *TASLP Jan. 2019 212-224*
- Kokuer, M.**, see Jancovic, P., *TASLP May 2019 932-947*
- Kolbaek, M.**, Tan, Z., and Jensen, J., On the Relationship Between Short-Time Objective Intelligibility and Short-Time Spectral-Amplitude Mean-Square Error for Speech Enhancement; *TASLP Feb. 2019 283-295*
- Kollmeier, B.**, see Xiong, F., *TASLP Feb. 2019 255-267*
- Kong, Q.**, Xu, Y., Sobieraj, I., Wang, W., and Plumbley, M.D., Sound Event Detection and Time-Frequency Segmentation from Weakly Labelled Data; *TASLP April 2019 777-787*
- Kong, Q.**, Yu, C., Xu, Y., Iqbal, T., Wang, W., and Plumbley, M.D., Weakly Labelled AudioSet Tagging With Attention Neural Networks; *TASLP Nov. 2019 1791-1802*
- Koriyama, T.**, and Kobayashi, T., Statistical Parametric Speech Synthesis Using Deep Gaussian Processes; *TASLP May 2019 948-959*
- Korpusik, M.**, and Glass, J., Deep Learning for Database Mapping and Asking Clarification Questions in Dialogue Systems; *TASLP Aug. 2019 1321-1334*
- Koutrouvelis, A.I.**, Hendriks, R.C., Heusdens, R., and Jensen, J., A Convex Approximation of the Relaxed Binaural Beamforming Optimization Problem; *TASLP Feb. 2019 321-331*
- Koutrouvelis, A.I.**, Hendriks, R.C., Heusdens, R., and Jensen, J., Robust Joint Estimation of Multimicrophone Signal Model Parameters; *TASLP July 2019 1136-1150*
- Kowalski, M.**, see Feng, F., *TASLP Feb. 2019 442-456*
- Koyama, S.**, see Ueno, N., *TASLP Dec. 2019 1852-1867*
- Krishnan, L.**, Betlehem, T., and Teal, P.D., Fast Algorithms for Acoustic Impulse Response Shaping; *TASLP Feb. 2019 392-403*
- Kumar, A.**, Guha, T., and Ghosh, P.K., Dirichlet Latent Variable Model: A Dynamic Model Based on Dirichlet Prior for Audio Processing; *TASLP May 2019 919-931*
- Kweon, I.S.**, see Parshakova, T., *TASLP Nov. 2019 1713-1724*
- L**
- Lai, J.**, see Wu, L., *TASLP Dec. 2019 1868-1879*
- Lambert, R.H.**, see Payal, S.S., *TASLP June 2019 1072-1084*
- Lan, Y.**, Wang, S., and Jiang, J., Knowledge Base Question Answering With a Matching-Aggregation Model and Question-Specific Contextual Relations; *TASLP Oct. 2019 1629-1638*
- Laufer, Y.**, and Gannot, S., A Bayesian Hierarchical Model for Speech Enhancement With Time-Varying Audio Channel; *TASLP Jan. 2019 225-239*
- Law, T.**, see Liu, Y., *TASLP June 2019 1047-1059*
- Lawson, A.**, see Ferrer, L., *TASLP Jan. 2019 140-153*
- Le, Y.**, see Quan, Z., *TASLP April 2019 853-865*
- Lee, C.**, Lee, H., Wu, S., Liu, C., Fang, W., Hsu, J., and Tseng, B., Machine Comprehension of Spoken Content: TOEFL Listening Test and Spoken SQuAD; *TASLP Sept. 2019 1469-1480*
- Lee, C.**, see Li, W., *TASLP Dec. 2019 2012-2024*
- Lee, C.**, see Qi, J., *TASLP Dec. 2019 1932-1943*
- Lee, C.**, see Chai, L., *TASLP Dec. 2019 1919-1931*
- Lee, C.**, see Tu, Y., *TASLP Dec. 2019 2080-2091*
- Lee, H.**, see Tuan, Y., *TASLP April 2019 788-798*
- Lee, H.**, see Chen, Y., *TASLP Sept. 2019 1481-1493*
- Lee, H.**, see Lee, C., *TASLP Sept. 2019 1469-1480*
- Lee, J.**, and Kang, H., A Joint Learning Algorithm for Complex-Valued T-F Masks in Deep Learning-Based Single-Channel Speech Enhancement Systems; *TASLP June 2019 1098-1108*
- Lee, K.Y.**, see Liu, Y., *TASLP June 2019 1047-1059*
- Lee, T.**, see Liu, Y., *TASLP June 2019 1047-1059*
- Lee, T.**, see Feng, S., *TASLP Dec. 2019 2000-2011*
- Li, H.**, see Zhang, J., *TASLP March 2019 507-518*
- Li, H.**, see Sisman, B., *TASLP June 2019 1085-1097*
- Li, J.**, see Li, L., *TASLP Sept. 2019 1392-1404*
- Li, J.**, see Zhang, Z., *TASLP Nov. 2019 1664-1674*
- Li, J.**, see Das, A., *TASLP Dec. 2019 1880-1892*
- Li, K.**, see Quan, Z., *TASLP April 2019 853-865*
- Li, L.**, Wang, J., Li, J., Ma, Q., and Wei, J., Relation Classification via Keyword-Attentive Sentence Mechanism and Synthetic Stimulation Loss; *TASLP Sept. 2019 1392-1404*
- Li, P.**, Chen, C., Zheng, W., Deng, Y., Ye, F., and Zheng, Z., STD: An Automatic Evaluation Metric for Machine Translation Based on Word Embeddings; *TASLP Oct. 2019 1497-1506*
- Li, T.**, see Luo, H., *TASLP July 2019 1201-1212*
- Li, W.**, see Wu, Y., *TASLP Feb. 2019 355-366*
- Li, W.**, Chen, N.F., Siniscalchi, S.M., and Lee, C., Improving Mispronunciation Detection of Mandarin Tones for Non-Native Learners With Soft-Target Tone Labels and BLSTM-Based Deep Tone Models; *TASLP Dec. 2019 2012-2024*
- Li, X.**, Girin, L., Gannot, S., and Horaud, R., Multichannel Speech Separation and Enhancement Using the Convolutional Transfer Function; *TASLP March 2019 645-659*
- Li, X.**, see Yang, B., *TASLP Aug. 2019 1241-1255*
- Li, X.**, Girin, L., Gannot, S., and Horaud, R., Multichannel Online Dereverberation Based on Spectral Magnitude Inverse Filtering; *TASLP Sept. 2019 1365-1377*
- Li, Z.**, Song, Y., Dai, L., and McLoughlin, I., Listening and Grouping: An Online Autoregressive Approach for Monaural Speech Separation; *TASLP April 2019 692-703*
- Li, Z.**, see Zhang, Z., *TASLP Nov. 2019 1664-1674*
- Liang, R.**, see Xie, Y., *TASLP Nov. 2019 1675-1685*
- Liang, Z.**, see Xie, Y., *TASLP Nov. 2019 1675-1685*
- Lin, S.**, Robust Pitch Estimation and Tracking For Speakers Based on Subband Encoding and The Generalized Labeled Multi-Bernoulli Filter; *TASLP April 2019 827-841*
- Ling, K.**, see Zhang, Z., *TASLP Nov. 2019 1664-1674*
- Ling, Q.**, see Yu, J., *TASLP Dec. 2019 2223-2233*
- Ling, Z.**, see Zhang, J., *TASLP March 2019 631-644*
- Little, M.A.**, see Shi, L., *TASLP Nov. 2019 1737-1751*
- Liu, B.**, see Luo, H., *TASLP July 2019 1201-1212*
- Liu, B.**, see Xu, Z., *TASLP Sept. 2019 1419-1431*
- Liu, C.**, see Lee, C., *TASLP Sept. 2019 1469-1480*
- Liu, D.**, Fu, J., Qu, Q., and Lv, J., BFGAN: Backward and Forward Generative Adversarial Networks for Lexically Constrained Sentence Generation; *TASLP Dec. 2019 2350-2361*
- Liu, H.**, see Zhao, Z., *TASLP April 2019 663-678*
- Liu, H.**, see Yang, B., *TASLP Aug. 2019 1241-1255*
- Liu, L.**, see Zhang, J., *TASLP March 2019 631-644*
- Liu, Q.**, see Chai, L., *TASLP Dec. 2019 1919-1931*

- Liu, T.**, *see* Wang, Y., *TASLP Oct. 2019 1564-1576*
- Liu, T.**, *see* Wu, L., *TASLP Dec. 2019 1868-1879*
- Liu, T.**, *see* Duan, J., *TASLP Dec. 2019 2313-2325*
- Liu, X.**, *see* Chen, X., *TASLP Sept. 2019 1444-1454*
- Liu, X.**, Wong, D.F., Chao, L.S., and Liu, Y., Latent Attribute Based Hierarchical Decoder for Neural Machine Translation; *TASLP Dec. 2019 2103-2112*
- Liu, Y.**, Lee, T., Law, T., and Lee, K.Y., Acoustical Assessment of Voice Disorder With Continuous Speech Using ASR Posterior Features; *TASLP June 2019 1047-1059*
- Liu, Y.**, and Wang, D., Divide and Conquer: A Deep CASA Approach to Talker-Independent Monaural Speaker Separation; *TASLP Dec. 2019 2092-2102*
- Liu, Y.**, *see* Liu, X., *TASLP Dec. 2019 2103-2112*
- Livescu, K.**, *see* Kamper, H., *TASLP Jan. 2019 89-98*
- Long, S.**, *see* Chen, L., *TASLP Sept. 2019 1378-1391*
- Long, Y.**, *see* Xu, Z., *TASLP Sept. 2019 1419-1431*
- Lotfian, R.**, and Busso, C., Curriculum Learning for Speech Emotion Recognition From Crowdsourced Labels; *TASLP April 2019 815-826*
- Lu, R.**, *see* Rahulamathavan, Y., *TASLP March 2019 496-506*
- Lu, R.**, Duan, Z., and Zhang, C., Audio-Visual Deep Clustering for Speech Separation; *TASLP Nov. 2019 1697-1712*
- Lubis, N.**, Sakti, S., Yoshino, K., and Nakamura, S., Positive Emotion Elicitation in Chat-Based Dialogue Systems; *TASLP April 2019 866-877*
- Luis Valero, M.**, and Habets, E.A.P., Low-Complexity Multi-Microphone Acoustic Echo Control in the Short-Time Fourier Transform Domain; *TASLP March 2019 595-609*
- Luo, C.**, *see* Yu, J., *TASLP Dec. 2019 2223-2233*
- Luo, H.**, Li, T., Liu, B., Wang, B., and Unger, H., Improving Aspect Term Extraction With Bidirectional Dependency Tree Representation; *TASLP July 2019 1201-1212*
- Luo, J.**, *see* Zhang, B., *TASLP Dec. 2019 2278-2287*
- Luo, Y.**, and Mesgarani, N., Conv-TasNet: Surpassing Ideal Time-Frequency Magnitude Masking for Speech Separation; *TASLP Aug. 2019 1256-1266*
- Luo, Z.**, Chen, J., Takiguchi, T., and Ariki, Y., Emotional Voice Conversion Using Dual Supervised Adversarial Networks With Continuous Wavelet Transform F0 Features; *TASLP Oct. 2019 1535-1548*
- Lv, J.**, *see* Liu, D., *TASLP Dec. 2019 2350-2361*

## M

- M.V., A.R.**, and Ghosh, P.K., Glottal Inverse Filtering Using Probabilistic Weighted Linear Prediction; *TASLP Jan. 2019 114-124*
- Ma, Q.**, *see* Li, L., *TASLP Sept. 2019 1392-1404*
- Ma, Q.**, Yu, L., Tian, S., Chen, E., and Ng, W.W.Y., Global-Local Mutual Attention Model for Text Classification; *TASLP Dec. 2019 2127-2139*
- Maffezzoni, P.**, *see* Bernardini, A., *TASLP Nov. 2019 1763-1776*
- Maghsoodi, N.**, Sameti, H., Zeinali, H., and Stafylakis, T., Speaker Recognition With Random Digit Strings Using Uncertainty Normalized HMM-Based i-Vectors; *TASLP Nov. 2019 1815-1825*
- Magron, P.**, and Virtanen, T., Complex ISNMF: A Phase-Aware Model for Monaural Audio Source Separation; *TASLP Jan. 2019 20-31*
- Majdak, P.**, *see* Marafioti, A., *TASLP Dec. 2019 2362-2372*
- Makishima, N.**, Mogami, S., Takamune, N., Kitamura, D., Sumino, H., Takamichi, S., Saruwatari, H., and Ono, N., Independent Deeply Learned Matrix Analysis for Determined Audio Source Separation; *TASLP Oct. 2019 1601-1615*
- Marafioti, A.**, Perraudin, N., Holighaus, N., and Majdak, P., A Context Encoder For Audio Inpainting; *TASLP Dec. 2019 2362-2372*
- Markov, K.**, *see* Yu, J., *TASLP April 2019 742-752*
- Mathews, V.J.**, *see* Payal, S.S., *TASLP June 2019 1072-1084*
- Matsui, T.**, *see* Yu, J., *TASLP April 2019 742-752*
- McLaren, M.**, *see* Ferrer, L., *TASLP Jan. 2019 140-153*
- McLoughlin, I.**, *see* Li, Z., *TASLP April 2019 692-703*
- Mehra, R.**, *see* Ben-Hur, Z., *TASLP Dec. 2019 2249-2262*
- Mesaros, A.**, Diment, A., Elizalde, B., Heittola, T., Vincent, E., Raj, B., and Virtanen, T., Sound Event Detection in the DCASE 2017 Challenge; *TASLP June 2019 992-1006*
- Mesgarani, N.**, *see* Luo, Y., *TASLP Aug. 2019 1256-1266*

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- Meyer, B.T.**, *see* Xiong, F., *TASLP Feb. 2019 255-267*
- Mimura, M.**, *see* Shimada, K., *TASLP May 2019 960-971*
- Minematsu, N.**, *see* Hashimoto, T., *TASLP Feb. 2019 332-341*
- Mishra, M.**, *see* A. P., P., *TASLP Dec. 2019 2183-2196*
- Mogami, S.**, *see* Makishima, N., *TASLP Oct. 2019 1601-1615*
- Moller, M.B.**, Nielsen, J.K., Fernandez-Grande, E., and Olesen, S.K., On the Influence of Transfer Function Noise on Sound Zone Control in a Room; *TASLP Sept. 2019 1405-1418*
- Moonen, M.**, *see* Dietzen, T., *TASLP March 2019 544-558*
- Moonen, M.**, *see* Ali, R., *TASLP Sept. 2019 1349-1364*
- Moonen, M.**, *see* Ali, R., *TASLP Dec. 2019 2288-2300*
- Moonen, M.**, *see* Antonello, N., *TASLP Dec. 2019 1893-1905*
- Moore, A.H.**, Xue, W., Naylor, P.A., and Brookes, M., Noise Covariance Matrix Estimation for Rotating Microphone Arrays; *TASLP March 2019 519-530*
- Moriya, T.**, Tanaka, T., Shinozaki, T., Watanabe, S., and Duh, K., Evolution-Strategy-Based Automation of System Development for High-Performance Speech Recognition; *TASLP Jan. 2019 77-88*
- Moriya, T.**, *see* Sugiura, R., *TASLP Dec. 2019 2234-2248*
- Mowlae, P.**, *see* Wood, S.U.N., *TASLP Dec. 2019 2150-2161*
- Murthy, H.A.**, *see* Prakash, J.J., *TASLP Oct. 2019 1616-1628*

## N

- Nakamura, S.**, *see* Lubis, N., *TASLP April 2019 866-877*
- Nakashika, T.**, Takaki, S., and Yamagishi, J., Complex-Valued Restricted Boltzmann Machine for Speaker-Dependent Speech Parameterization From Complex Spectra; *TASLP Feb. 2019 244-254*
- Nandwana, M.K.**, *see* Ferrer, L., *TASLP Jan. 2019 140-153*
- Naqvi, S.M.**, *see* Sun, Y., *TASLP Jan. 2019 125-139*
- Naylor, P.A.**, *see* Moore, A.H., *TASLP March 2019 519-530*
- Naylor, P.A.**, *see* Antonello, N., *TASLP Dec. 2019 1893-1905*
- Ng, M.K.**, *see* Deng, D., *TASLP April 2019 704-718*
- Ng, W.W.Y.**, *see* Ma, Q., *TASLP Dec. 2019 2127-2139*
- Ngo, G.H.**, Nguyen, M., and Chen, N.F., Phonology-Augmented Statistical Framework for Machine Transliteration Using Limited Linguistic Resources; *TASLP Jan. 2019 199-211*
- Nguyen, C.Q.**, *see* Duong, T.T.H., *TASLP Jan. 2019 32-43*
- Nguyen, M.**, *see* Ngo, G.H., *TASLP Jan. 2019 199-211*
- Nguyen, P.C.**, *see* Duong, T.T.H., *TASLP Jan. 2019 32-43*
- Nielsen, J.K.**, *see* Kavalekalam, M.S., *TASLP Jan. 2019 99-113*
- Nielsen, J.K.**, *see* Moller, M.B., *TASLP Sept. 2019 1405-1418*
- Nielsen, J.K.**, *see* Shi, L., *TASLP Nov. 2019 1737-1751*
- Nordholm, S.E.**, *see* Schepker, H., *TASLP April 2019 679-691*
- Nugraha, A.A.**, *see* Sekiguchi, K., *TASLP Dec. 2019 2197-2212*

## O

- Olesen, S.K.**, *see* Moller, M.B., *TASLP Sept. 2019 1405-1418*
- Ono, N.**, *see* Imoto, K., *TASLP Feb. 2019 367-382*
- Ono, N.**, *see* Makishima, N., *TASLP Oct. 2019 1601-1615*
- Ostergaard, J.**, *see* Jahromi, M.Z., *TASLP March 2019 472-481*

## P

- Pak, J.**, and Shin, J.W., Sound Localization Based on Phase Difference Enhancement Using Deep Neural Networks; *TASLP Aug. 2019 1335-1345*
- Paleologu, C.**, *see* Elisei-Iliescu, C., *TASLP May 2019 903-918*
- Pan, C.**, Chen, J., Benesty, J., and Shi, G., On the Design of Target Beampatterns for Differential Microphone Arrays; *TASLP Aug. 2019 1295-1307*
- Pandey, A.**, and Wang, D., A New Framework for CNN-Based Speech Enhancement in the Time Domain; *TASLP July 2019 1179-1188*
- Pandey, P.C.**, *see* Tiwari, N., *TASLP Dec. 2019 2301-2312*
- Pang, C.**, *see* Yang, B., *TASLP Aug. 2019 1241-1255*
- Pardo, B.**, *see* Zhang, Y., *TASLP Feb. 2019 429-441*
- Pardo, B.**, *see* Pishdadian, F., *TASLP Feb. 2019 342-354*

- Park, J.**, and Chang, J., State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance; *TASLP Oct. 2019 1520-1534*
- Parshakova, T.**, Rameau, F., Serdega, A., Kweon, I.S., and Kim, D., Latent Question Interpretation Through Variational Adaptation; *TASLP Nov. 2019 1713-1724*
- Payal, S.S.**, Mathews, V.J., Button, D.J., Iyer, A., Lambert, R.H., Hutchings, J., and Azpicueta-Ruiz, L.A., Equalization of Nonlinear Propagation Distortion in Cylindrical Waveguides; *TASLP June 2019 1072-1084*
- Peinado, A.M.**, see Gomez-Alanis, A., *TASLP Dec. 2019 1985-1999*
- Pernkopf, F.**, see Pfeifenberger, L., *TASLP Dec. 2019 2162-2172*
- Perraudin, N.**, see Marafioti, A., *TASLP Dec. 2019 2362-2372*
- Persia, L.E.D.**, see Ibarrola, F.J., *TASLP May 2019 881-891*
- Pfeifenberger, L.**, Zohrer, M., and Pernkopf, F., Eigenvector-Based Speech Mask Estimation for Multi-Channel Speech Enhancement; *TASLP Dec. 2019 2162-2172*
- Pishdadian, F.**, and Pardo, B., Multi-Resolution Common Fate Transform; *TASLP Feb. 2019 342-354*
- Plumbley, M.D.**, see Kong, Q., *TASLP April 2019 777-787*
- Plumbley, M.D.**, see Kong, Q., *TASLP Nov. 2019 1791-1802*
- Porschmann, C.**, Arend, J.M., and Brinkmann, F., Directional Equalization of Sparse Head-Related Transfer Function Sets for Spatial Upsampling; *TASLP June 2019 1060-1071*
- Prakash, J.J.**, and Murthy, H.A., Analysis of Inter-Pausal Units in Indian Languages and Its Application to Text-to-Speech Synthesis; *TASLP Oct. 2019 1616-1628*
- Prasanna, S.R.M.**, see Vikram, C.M., *TASLP July 2019 1189-1200*

## Q

- Qi, J.**, Du, J., Siniscalchi, S.M., and Lee, C., A Theory on Deep Neural Network Based Vector-to-Vector Regression With an Illustration of Its Expressive Power in Speech Enhancement; *TASLP Dec. 2019 1932-1943*
- Qian, Y.**, see Wang, S., *TASLP Nov. 2019 1686-1696*
- Qin, T.**, see Wang, Y., *TASLP Oct. 2019 1564-1576*
- Qin, T.**, see Wu, L., *TASLP Dec. 2019 1868-1879*
- Qiu, X.**, see Zhang, G., *TASLP Jan. 2019 44-52*
- Qiu, X.**, see Zhu, Q., *TASLP March 2019 610-620*
- Qiu, X.**, see Guo, Q., *TASLP Dec. 2019 2213-2222*
- Qiu, X.**, see Zhao, L., *TASLP Dec. 2019 2326-2335*
- Qu, Q.**, see Liu, D., *TASLP Dec. 2019 2350-2361*
- Quan, Z.**, Wang, Z., Le, Y., Yao, B., Li, K., and Yin, J., An Efficient Framework for Sentence Similarity Modeling; *TASLP April 2019 853-865*

## R

- Rafaely, B.**, see Ben-Hur, Z., *TASLP Dec. 2019 2249-2262*
- Ragni, A.**, see Chen, X., *TASLP Sept. 2019 1444-1454*
- Rahulamathavan, Y.**, Sutharsini, K.R., Ray, I.G., Lu, R., and Rajarajan, M., Privacy-Preserving iVector-Based Speaker Verification; *TASLP March 2019 496-506*
- Raj, B.**, see Mesaros, A., *TASLP June 2019 992-1006*
- Rajarajan, M.**, see Rahulamathavan, Y., *TASLP March 2019 496-506*
- Rameau, F.**, see Parshakova, T., *TASLP Nov. 2019 1713-1724*
- Ramo, J.**, see Valimaki, V., *TASLP Dec. 2019 2140-2149*
- Ray, I.G.**, see Rahulamathavan, Y., *TASLP March 2019 496-506*
- Remaggi, L.**, Jackson, P.J.B., and Wang, W., Modeling the Comb Filter Effect and Interaural Coherence for Binaural Source Separation; *TASLP Dec. 2019 2263-2277*
- Richter, J.**, and Fels, J., On the Influence of Continuous Subject Rotation During High-Resolution Head-Related Transfer Function Measurements; *TASLP April 2019 730-741*

## S

- Saito, D.**, see Hashimoto, T., *TASLP Feb. 2019 332-341*
- Saito, S.**, see Koizumi, Y., *TASLP Jan. 2019 212-224*

- Sakti, S.**, see Lubis, N., *TASLP April 2019 866-877*
- Sameti, H.**, see Maghsoodi, N., *TASLP Nov. 2019 1815-1825*
- Santos, J.F.**, see Cauchi, B., *TASLP July 2019 1151-1163*
- Saraclar, M.**, see Yusuf, B., *TASLP July 2019 1126-1135*
- Sarkar, A.K.**, Tan, Z., Tang, H., Shon, S., and Glass, J., Time-Contrastive Learning Based Deep Bottleneck Features for Text-Dependent Speaker Verification; *TASLP Aug. 2019 1267-1279*
- Sarti, A.**, see Bernardini, A., *TASLP Nov. 2019 1763-1776*
- Sarti, A.**, see Borra, F., *TASLP Dec. 2019 1906-1918*
- Saruwatari, H.**, see Makishima, N., *TASLP Oct. 2019 1601-1615*
- Saruwatari, H.**, see Ueno, N., *TASLP Dec. 2019 1852-1867*
- Saz, O.**, see Deena, S., *TASLP March 2019 572-582*
- Schepker, H.**, Nordholm, S.E., Tran, L.T.T., and Doclo, S., Null-Steering Beamformer-Based Feedback Cancellation for Multi-Microphone Hearing Aids With Incoming Signal Preservation; *TASLP April 2019 679-691*
- Schneider, M.**, and Habets, E.A.P., Iterative DFT-Domain Inverse Filter Optimization Using a Weighted Least-Squares Criterion; *TASLP Dec. 2019 1957-1969*
- Schuller, B.**, see Xie, Y., *TASLP Nov. 2019 1675-1685*
- Schultz, F.**, see Winter, F., *TASLP June 2019 1031-1046*
- Sekiguchi, K.**, Bando, Y., Nugraha, A.A., Yoshii, K., and Kawahara, T., Semi-Supervised Multichannel Speech Enhancement With a Deep Speech Prior; *TASLP Dec. 2019 2197-2212*
- Serdega, A.**, see Parshakova, T., *TASLP Nov. 2019 1713-1724*
- Shakhtarovich, G.**, see Kamper, H., *TASLP Jan. 2019 89-98*
- Shen, C.**, see Chen, Y., *TASLP Sept. 2019 1481-1493*
- Shi, G.**, see Pan, C., *TASLP Aug. 2019 1295-1307*
- Shi, L.**, Nielsen, J.K., Jensen, J.R., Little, M.A., and Christensen, M.G., Robust Bayesian Pitch Tracking Based on the Harmonic Model; *TASLP Nov. 2019 1737-1751*
- Shimada, K.**, Bando, Y., Mimura, M., Itoyama, K., Yoshii, K., and Kawahara, T., Unsupervised Speech Enhancement Based on Multichannel NMF-Informed Beamforming for Noise-Robust Automatic Speech Recognition; *TASLP May 2019 960-971*
- Shin, J.W.**, see Pak, J., *TASLP Aug. 2019 1335-1345*
- Shinozaki, T.**, see Moriya, T., *TASLP Jan. 2019 77-88*
- Shon, S.**, see Sarkar, A.K., *TASLP Aug. 2019 1267-1279*
- Siedenburg, K.**, see Cauchi, B., *TASLP July 2019 1151-1163*
- Siniscalchi, S.M.**, see Li, W., *TASLP Dec. 2019 2012-2024*
- Siniscalchi, S.M.**, see Qi, J., *TASLP Dec. 2019 1932-1943*
- Sisman, B.**, Zhang, M., and Li, H., Group Sparse Representation With WaveNet Vocoder Adaptation for Spectrum and Prosody Conversion; *TASLP June 2019 1085-1097*
- Sobieraj, I.**, see Kong, Q., *TASLP April 2019 777-787*
- Song, Y.**, see Li, Z., *TASLP April 2019 692-703*
- Spies, R.D.**, see Ibarrola, F.J., *TASLP May 2019 881-891*
- Spors, S.**, see Winter, F., *TASLP June 2019 1031-1046*
- Spriet, A.**, see Dietzen, T., *TASLP March 2019 544-558*
- Squartini, S.**, see Gabrielli, L., *TASLP Aug. 2019 1229-1240*
- Sreenivas, T.V.**, see Chetupalli, S.R., *TASLP June 2019 1007-1018*
- Srivastava, V.**, see A. P., P., *TASLP Dec. 2019 2183-2196*
- Stafylakis, T.**, see Maghsoodi, N., *TASLP Nov. 2019 1815-1825*
- Stahl, J.K.W.**, see Wood, S.U.N., *TASLP Dec. 2019 2150-2161*
- Stanciu, C.**, see Elisei-Iliescu, C., *TASLP May 2019 903-918*
- Stoter, F.**, Chakrabarty, S., Edler, B., and Habets, E.A.P., CountNet: Estimating the Number of Concurrent Speakers Using Supervised Learning; *TASLP Feb. 2019 268-282*
- Su, J.**, see Zhang, B., *TASLP Dec. 2019 2278-2287*
- Sugiura, R.**, Kamamoto, Y., and Moriya, T., Shape Control of Discrete Generalized Gaussian Distributions for Frequency-Domain Audio Coding; *TASLP Dec. 2019 2234-2248*
- Sumino, H.**, see Makishima, N., *TASLP Oct. 2019 1601-1615*
- Sumita, E.**, see Chen, K., *TASLP Dec. 2019 1970-1984*
- Sun, C.**, see Xu, Z., *TASLP Sept. 2019 1419-1431*
- Sun, S.**, see Deng, D., *TASLP April 2019 704-718*

- Sun, S.**, Guo, P., Xie, L., and Hwang, M., Adversarial Regularization for Attention Based End-to-End Robust Speech Recognition; *TASLP Nov. 2019 1826-1838*
- Sun, S.**, see Deng, D., *TASLP Nov. 2019 1777-1790*
- Sun, Y.**, Wang, W., Chambers, J., and Naqvi, S.M., Two-Stage Monaural Source Separation in Reverberant Room Environments Using Deep Neural Networks; *TASLP Jan. 2019 125-139*
- Sutharsini, K.R.**, see Rahulamathavan, Y., *TASLP March 2019 496-506*

## T

- Takaki, S.**, see Nakashika, T., *TASLP Feb. 2019 244-254*
- Takamichi, S.**, see Makishima, N., *TASLP Oct. 2019 1601-1615*
- Takamune, N.**, see Makishima, N., *TASLP Oct. 2019 1601-1615*
- Takiguchi, T.**, see Luo, Z., *TASLP Oct. 2019 1535-1548*
- Tan, B.**, see Chen, L., *TASLP Sept. 2019 1378-1391*
- Tan, K.**, Chen, J., and Wang, D., Gated Residual Networks With Dilated Convolutions for Monaural Speech Enhancement; *TASLP Jan. 2019 189-198*
- Tan, X.**, see Wu, L., *TASLP Dec. 2019 1868-1879*
- Tan, Z.**, see Kolbaek, M., *TASLP Feb. 2019 283-295*
- Tan, Z.**, see Sarkar, A.K., *TASLP Aug. 2019 1267-1279*
- Tanaka, K.**, see Kameoka, H., *TASLP Sept. 2019 1432-1443*
- Tanaka, T.**, see Moriya, T., *TASLP Jan. 2019 77-88*
- Tang, D.**, see Bao, J., *TASLP Feb. 2019 311-320*
- Tang, H.**, see Sarkar, A.K., *TASLP Aug. 2019 1267-1279*
- Tao, J.**, see Zhang, G., *TASLP Jan. 2019 44-52*
- Tao, J.**, see Yi, J., *TASLP March 2019 621-630*
- Tao, J.**, see Zheng, Y., *TASLP Dec. 2019 2067-2079*
- Teal, P.D.**, see Krishnan, L., *TASLP Feb. 2019 392-403*
- Tian, S.**, see Ma, Q., *TASLP Dec. 2019 2127-2139*
- Tirry, W.**, see Dietzen, T., *TASLP March 2019 544-558*
- Tiwari, N.**, and Pandey, P.C., Speech Enhancement Using Noise Estimation With Dynamic Quantile Tracking; *TASLP Dec. 2019 2301-2312*
- Tomassetti, S.**, see Gabrielli, L., *TASLP Aug. 2019 1229-1240*
- Tran, L.T.T.**, see Schepker, H., *TASLP April 2019 679-691*
- Tronstad, T.V.**, see Gelderblom, F.B., *TASLP March 2019 583-594*
- Tsong, B.**, see Lee, C., *TASLP Sept. 2019 1469-1480*
- Tsiaras, V.**, see Juvela, L., *TASLP June 2019 1019-1030*
- Tsiris, D.**, see Barkan, O., *TASLP Dec. 2019 2385-2396*
- Tu, Q.**, and Chen, H., On Mainlobe Orientation of the First- and Second-Order Differential Microphone Arrays; *TASLP Dec. 2019 2025-2040*
- Tu, Y.**, Du, J., and Lee, C., Speech Enhancement Based on Teacher-Student Deep Learning Using Improved Speech Presence Probability for Noise-Robust Speech Recognition; *TASLP Dec. 2019 2080-2091*
- Tuan, Y.**, and Lee, H., Improving Conditional Sequence Generative Adversarial Networks by Stepwise Evaluation; *TASLP April 2019 788-798*

## U

- Uematsu, H.**, see Koizumi, Y., *TASLP Jan. 2019 212-224*
- Ueno, N.**, Koyama, S., and Saruwatari, H., Three-Dimensional Sound Field Reproduction Based on Weighted Mode-Matching Method; *TASLP Dec. 2019 1852-1867*
- Unger, H.**, see Luo, H., *TASLP July 2019 1201-1212*
- Utiyama, M.**, see Chen, K., *TASLP Dec. 2019 1970-1984*

## V

- Valimaki, V.**, and Ramo, J., Neurally Controlled Graphic Equalizer; *TASLP Dec. 2019 2140-2149*
- van den Oord, A.**, see Chorowski, J., *TASLP Dec. 2019 2041-2053*
- van Waterschoot, T.**, see Dietzen, T., *TASLP March 2019 544-558*
- van Waterschoot, T.**, see Ali, R., *TASLP Sept. 2019 1349-1364*
- Van Waterschoot, T.**, see Ali, R., *TASLP Dec. 2019 2288-2300*
- van Waterschoot, T.**, see Antonello, N., *TASLP Dec. 2019 1893-1905*
- Varanasi, V.**, Agarwal, A., and Hegde, R.M., Near-Field Acoustic Source Localization Using Spherical Harmonic Features; *TASLP Dec. 2019 2054-2066*

- Viggen, E.M.**, see Gelderblom, F.B., *TASLP March 2019 583-594*
- Vikram, C.M.**, Adiga, N., and Prasanna, S.R.M., Detection of Nasalized Voiced Stops in Cleft Palate Speech Using Epoch-Synchronous Features; *TASLP July 2019 1189-1200*
- Vincent, E.**, see Mesaros, A., *TASLP June 2019 992-1006*
- Virtanen, T.**, see Magron, P., *TASLP Jan. 2019 20-31*
- Virtanen, T.**, see Mesaros, A., *TASLP June 2019 992-1006*

## W

- Wan, M.**, see Xiao, K., *TASLP Feb. 2019 383-391*
- Wang, B.**, see Luo, H., *TASLP July 2019 1201-1212*
- Wang, B.**, see Xu, Z., *TASLP Sept. 2019 1419-1431*
- Wang, D.**, see Zhao, Y., *TASLP Jan. 2019 53-62*
- Wang, D.**, see Tan, K., *TASLP Jan. 2019 189-198*
- Wang, D.**, see Wang, Z., *TASLP Jan. 2019 178-188*
- Wang, D.**, see Wang, Z., *TASLP Feb. 2019 457-468*
- Wang, D.**, see Pandey, A., *TASLP July 2019 1179-1188*
- Wang, D.**, see Delfarah, M., *TASLP Nov. 2019 1839-1848*
- Wang, D.**, see Liu, Y., *TASLP Dec. 2019 2092-2102*
- Wang, J.**, see Li, L., *TASLP Sept. 2019 1392-1404*
- Wang, M.**, see Xu, Z., *TASLP Sept. 2019 1419-1431*
- Wang, R.**, Chen, Z., and Yin, F.Y., DOA-Based Three-Dimensional Node Geometry Calibration in Acoustic Sensor Networks and Its Cramér-Rao Bound and Sensitivity Analysis; *TASLP Sept. 2019 1455-1468*
- Wang, R.**, see Chen, K., *TASLP Dec. 2019 1970-1984*
- Wang, S.**, see Xiao, K., *TASLP Feb. 2019 383-391*
- Wang, S.**, see Lan, Y., *TASLP Oct. 2019 1629-1638*
- Wang, S.**, Huang, Z., Qian, Y., and Yu, K., Discriminative Neural Embedding Learning for Short-Duration Text-Independent Speaker Verification; *TASLP Nov. 2019 1686-1696*
- Wang, W.**, see Sun, Y., *TASLP Jan. 2019 125-139*
- Wang, W.**, see Kong, Q., *TASLP April 2019 777-787*
- Wang, W.**, see Kong, Q., *TASLP Nov. 2019 1791-1802*
- Wang, W.**, see Remaggi, L., *TASLP Dec. 2019 2263-2277*
- Wang, X.**, Cohen, I., Chen, J., and Benesty, J., On Robust and High Directional Beamforming With Small-Spacing Microphone Arrays for Scattered Sources; *TASLP April 2019 842-852*
- Wang, X.**, see Xu, Z., *TASLP Sept. 2019 1419-1431*
- Wang, Y.**, see Chen, X., *TASLP Sept. 2019 1444-1454*
- Wang, Y.**, see Chen, Y., *TASLP Sept. 2019 1481-1493*
- Wang, Y.**, Xia, Y., Zhao, L., Bian, J., Qin, T., Chen, E., and Liu, T., Semi-Supervised Neural Machine Translation via Marginal Distribution Estimation; *TASLP Oct. 2019 1564-1576*
- Wang, Y.**, see Wong, J.H.M., *TASLP Nov. 2019 1725-1736*
- Wang, Z.**, see Zhao, Y., *TASLP Jan. 2019 53-62*
- Wang, Z.**, Zhang, X., and Wang, D., Robust Speaker Localization Guided by Deep Learning-Based Time-Frequency Masking; *TASLP Jan. 2019 178-188*
- Wang, Z.**, and Wang, D., Combining Spectral and Spatial Features for Deep Learning Based Blind Speaker Separation; *TASLP Feb. 2019 457-468*
- Wang, Z.**, see Quan, Z., *TASLP April 2019 853-865*
- Watanabe, S.**, see Moriya, T., *TASLP Jan. 2019 77-88*
- Wei, J.**, see Li, L., *TASLP Sept. 2019 1392-1404*
- Weiss, R.J.**, see Chorowski, J., *TASLP Dec. 2019 2041-2053*
- Wen, Z.**, see Yi, J., *TASLP March 2019 621-630*
- Wen, Z.**, see Zheng, Y., *TASLP Dec. 2019 2067-2079*
- Widmark, S.**, Causal MSE-Optimal Filters for Personal Audio Subject to Constrained Contrast; *TASLP May 2019 972-987*
- Winter, F.**, Schultz, F., Firtha, G., and Spors, S., A Geometric Model for Prediction of Spatial Aliasing in 2.5D Sound Field Synthesis; *TASLP June 2019 1031-1046*
- Wong, D.F.**, see Liu, X., *TASLP Dec. 2019 2103-2112*
- Wong, J.H.M.**, see Chen, X., *TASLP Sept. 2019 1444-1454*
- Wong, J.H.M.**, Gales, M.J.F., and Wang, Y., General Sequence Teacher-Student Learning; *TASLP Nov. 2019 1725-1736*

- Wood, S.U.N.**, Stahl, J.K.W., and Mowlae, P., Binaural Codebook-Based Speech Enhancement With Atomic Speech Presence Probability; *TASLP Dec. 2019 2150-2161*
- Wu, J.**, *see* Zhang, T., *TASLP Aug. 2019 1216-1228*
- Wu, L.**, *see* Xiao, K., *TASLP Feb. 2019 383-391*
- Wu, L.**, Tan, X., Qin, T., Lai, J., and Liu, T., Beyond Error Propagation: Language Branching Also Affects the Accuracy of Sequence Generation; *TASLP Dec. 2019 1868-1879*
- Wu, M.**, *see* Zhu, Q., *TASLP March 2019 610-620*
- Wu, S.**, *see* Lee, C., *TASLP Sept. 2019 1469-1480*
- Wu, Y.**, and Li, W., Automatic Audio Chord Recognition With MIDI-Trained Deep Feature and BLSTM-CRF Sequence Decoding Model; *TASLP Feb. 2019 355-366*

## X

- Xia, R.**, *see* Yu, J., *TASLP Jan. 2019 168-177*
- Xia, Y.**, *see* Wang, Y., *TASLP Oct. 2019 1564-1576*
- Xiao, K.**, Wang, S., Wan, M., and Wu, L., Reconstruction of Mandarin Electrolaryngeal Fricatives With Hybrid Noise Source; *TASLP Feb. 2019 383-391*
- Xie, L.**, *see* Sun, S., *TASLP Nov. 2019 1826-1838*
- Xie, Y.**, Liang, R., Liang, Z., Huang, C., Zou, C., and Schuller, B., Speech Emotion Classification Using Attention-Based LSTM; *TASLP Nov. 2019 1675-1685*
- Xiong, D.**, *see* Zhang, B., *TASLP Dec. 2019 2278-2287*
- Xiong, F.**, Goetze, S., Kollmeier, B., and Meyer, B.T., Joint Estimation of Reverberation Time and Early-To-Late Reverberation Ratio From Single-Channel Speech Signals; *TASLP Feb. 2019 255-267*
- Xu, Y.**, *see* Kong, Q., *TASLP April 2019 777-787*
- Xu, Y.**, *see* Kong, Q., *TASLP Nov. 2019 1791-1802*
- Xu, Z.**, Sun, C., Long, Y., Liu, B., Wang, B., Wang, M., Zhang, M., and Wang, X., Dynamic Working Memory for Context-Aware Response Generation; *TASLP Sept. 2019 1419-1431*
- Xue, W.**, *see* Moore, A.H., *TASLP March 2019 519-530*
- Xue, X.**, *see* Guo, Q., *TASLP Dec. 2019 2213-2222*

## Y

- Yamagishi, J.**, *see* Nakashika, T., *TASLP Feb. 2019 244-254*
- Yan, Y.**, *see* Zhang, Y., *TASLP July 2019 1164-1178*
- Yan, Z.**, *see* Bao, J., *TASLP Feb. 2019 311-320*
- Yang, B.**, Liu, H., Pang, C., and Li, X., Multiple Sound Source Counting and Localization Based on TF-Wise Spatial Spectrum Clustering; *TASLP Aug. 2019 1241-1255*
- Yang, G.**, He, H., and Chen, Q., Emotion-Semantic-Enhanced Neural Network; *TASLP March 2019 531-543*
- Yang, J.**, *see* Zhu, Q., *TASLP March 2019 610-620*
- Yang, J.**, Das, R.K., and Zhou, N., Extraction of Octave Spectra Information for Spoofing Attack Detection; *TASLP Dec. 2019 2373-2384*
- Yang, Y.**, and Bao, C., RS-CAE-Based AR-Wiener Filtering and Harmonic Recovery for Speech Enhancement; *TASLP Nov. 2019 1752-1762*
- Yao, B.**, *see* Quan, Z., *TASLP April 2019 853-865*
- Ye, F.**, *see* Li, P., *TASLP Oct. 2019 1497-1506*
- Ye, G.**, *see* Das, A., *TASLP Dec. 2019 1880-1892*
- Yi, J.**, Tao, J., Wen, Z., and Bai, Y., Language-Adversarial Transfer Learning for Low-Resource Speech Recognition; *TASLP March 2019 621-630*
- Yi, J.**, *see* Zheng, Y., *TASLP Dec. 2019 2067-2079*
- Yin, F.Y.**, *see* Wang, R., *TASLP Sept. 2019 1455-1468*
- Yin, J.**, *see* Quan, Z., *TASLP April 2019 853-865*
- Yoshii, K.**, *see* Shimada, K., *TASLP May 2019 960-971*
- Yoshii, K.**, *see* Sekiguchi, K., *TASLP Dec. 2019 2197-2212*
- Yoshino, K.**, *see* Lubis, N., *TASLP April 2019 866-877*
- Yu, C.**, *see* Kong, Q., *TASLP Nov. 2019 1791-1802*
- Yu, J.**, Jiang, J., and Xia, R., Global Inference for Aspect and Opinion Terms Co-Extraction Based on Multi-Task Neural Networks; *TASLP Jan. 2019 168-177*
- Yu, J.**, *see* Deng, D., *TASLP April 2019 704-718*

- Yu, J.**, Markov, K., and Matsui, T., Articulatory and Spectrum Information Fusion Based on Deep Recurrent Neural Networks; *TASLP April 2019 742-752*
- Yu, J.**, *see* Deng, D., *TASLP Nov. 2019 1777-1790*
- Yu, J.**, Ling, Q., Luo, C., and Chen, C.W., Synthesizing 3D Trump: Predicting and Visualizing the Relationship Between Text, Speech, and Articulatory Movements; *TASLP Dec. 2019 2223-2233*
- Yu, K.**, *see* Chen, L., *TASLP Sept. 2019 1378-1391*
- Yu, K.**, *see* Wang, S., *TASLP Nov. 2019 1686-1696*
- Yu, L.**, *see* Ma, Q., *TASLP Dec. 2019 2127-2139*
- Yusuf, B.**, Gundogdu, B., and Saraclar, M., Low Resource Keyword Search With Synthesized Crosslingual Exemplars; *TASLP July 2019 1126-1135*

## Z

- Zahedi, A.**, *see* Jahromi, M.Z., *TASLP March 2019 472-481*
- Zakeri, V.**, and Hodgson, A.J., Automatic Identification of Hard and Soft Bone Tissues by Analyzing Drilling Sounds; *TASLP Feb. 2019 404-414*
- Zeinali, H.**, *see* Maghsoodi, N., *TASLP Nov. 2019 1815-1825*
- Zhang, B.**, Xiong, D., Su, J., and Luo, J., Future-Aware Knowledge Distillation for Neural Machine Translation; *TASLP Dec. 2019 2278-2287*
- Zhang, C.**, *see* Lu, R., *TASLP Nov. 2019 1697-1712*
- Zhang, G.**, Tao, J., Qiu, X., and Burnett, I., Decentralized Two-Channel Active Noise Control for Single Frequency by Shaping Matrix Eigenvalues; *TASLP Jan. 2019 44-52*
- Zhang, J.**, Zhao, Y., Li, H., and Zong, C., Attention With Sparsity Regularization for Neural Machine Translation and Summarization; *TASLP March 2019 507-518*
- Zhang, J.**, Ling, Z., Liu, L., Jiang, Y., and Dai, L., Sequence-to-Sequence Acoustic Modeling for Voice Conversion; *TASLP March 2019 631-644*
- Zhang, J.**, Heusdens, R., and Hendriks, R.C., Relative Acoustic Transfer Function Estimation in Wireless Acoustic Sensor Networks; *TASLP Oct. 2019 1507-1519*
- Zhang, M.**, *see* Sisman, B., *TASLP June 2019 1085-1097*
- Zhang, M.**, *see* Xu, Z., *TASLP Sept. 2019 1419-1431*
- Zhang, P.**, *see* Zhang, Y., *TASLP July 2019 1164-1178*
- Zhang, Q.**, *see* Zhao, L., *TASLP Dec. 2019 2326-2335*
- Zhang, T.**, and Wu, J., Constrained Learned Feature Extraction for Acoustic Scene Classification; *TASLP Aug. 2019 1216-1228*
- Zhang, X.**, *see* Wang, Z., *TASLP Jan. 2019 178-188*
- Zhang, X.**, *see* Zheng, N., *TASLP Jan. 2019 63-76*
- Zhang, Y.**, Pardo, B., and Duan, Z., Siamese Style Convolutional Neural Networks for Sound Search by Vocal Imitation; *TASLP Feb. 2019 429-441*
- Zhang, Y.**, Zhang, P., and Yan, Y., Tailoring an Interpretable Neural Language Model; *TASLP July 2019 1164-1178*
- Zhang, Y.**, *see* Duan, J., *TASLP Dec. 2019 2313-2325*
- Zhang, Z.**, Zhao, H., Ling, K., Li, J., Li, Z., He, S., and Fu, G., Effective Subword Segmentation for Text Comprehension; *TASLP Nov. 2019 1664-1674*
- Zhang, Z.**, *see* Guo, Q., *TASLP Dec. 2019 2213-2222*
- Zhao, G.**, and Gutierrez-Osuna, R., Using Phonetic Posteriorgram Based Frame Pairing for Segmental Accent Conversion; *TASLP Oct. 2019 1649-1660*
- Zhao, H.**, *see* Zhang, Z., *TASLP Nov. 2019 1664-1674*
- Zhao, L.**, *see* Wang, Y., *TASLP Oct. 2019 1564-1576*
- Zhao, L.**, Qiu, X., Zhang, Q., and Huang, X., Sequence Labeling With Deep Gated Dual Path CNN; *TASLP Dec. 2019 2326-2335*
- Zhao, R.**, *see* Das, A., *TASLP Dec. 2019 1880-1892*
- Zhao, T.**, *see* Bao, J., *TASLP Feb. 2019 311-320*
- Zhao, T.**, *see* Bai, X., *TASLP Oct. 2019 1639-1648*
- Zhao, T.**, *see* Chen, K., *TASLP Dec. 2019 1970-1984*
- Zhao, Y.**, Wang, Z., and Wang, D., Two-Stage Deep Learning for Noisy-Reverberant Speech Enhancement; *TASLP Jan. 2019 53-62*
- Zhao, Y.**, *see* Zhang, J., *TASLP March 2019 507-518*
- Zhao, Z.**, Liu, H., and Fingscheidt, T., Convolutional Neural Networks to Enhance Coded Speech; *TASLP April 2019 663-678*
- Zheng, N.**, and Zhang, X., Phase-Aware Speech Enhancement Based on Deep Neural Networks; *TASLP Jan. 2019 63-76*
- Zheng, W.**, *see* Li, P., *TASLP Oct. 2019 1497-1506*



**Zheng, Y.**, Tao, J., Wen, Z., and Yi, J., Forward-Backward Decoding Sequence for Regularizing End-to-End TTS; *TASLP Dec. 2019 2067-2079*  
**Zheng, Z.**, see Li, P., *TASLP Oct. 2019 1497-1506*  
**Zhou, M.**, see Bao, J., *TASLP Feb. 2019 311-320*  
**Zhou, M.**, Huang, M., and Zhu, X., Story Ending Selection by Finding Hints From Pairwise Candidate Endings; *TASLP April 2019 719-729*  
**Zhou, N.**, see Yang, J., *TASLP Dec. 2019 2373-2384*  
**Zhu, H.**, see Dang, X., *TASLP Dec. 2019 1944-1956*  
**Zhu, Q.**, Coleman, P., Qiu, X., Wu, M., Yang, J., and Burnett, I., Robust Personal Audio Geometry Optimization in the SVD-Based Modal Domain; *TASLP March 2019 610-620*  
**Zhu, X.**, see Zhou, M., *TASLP April 2019 719-729*  
**Zinato, C.**, see Gabrielli, L., *TASLP Aug. 2019 1229-1240*  
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- Underdetermined Reverberant Blind Source Separation: Sparse Approaches for Multiplicative and Convolutional Narrowband Approximation. Feng, F., +, *TASLP Feb. 2019 442-456*

**Convex programming**

- A Convex Approximation of the Relaxed Binaural Beamforming Optimization Problem. Koutrouvelis, A.I., +, *TASLP Feb. 2019 321-331*
- Integration of *a Priori* and Estimated Constraints Into an MVDR Beamformer for Speech Enhancement. Ali, R., +, *TASLP Dec. 2019 2288-2300*
- Relative Acoustic Transfer Function Estimation in Wireless Acoustic Sensor Networks. Zhang, J., +, *TASLP Oct. 2019 1507-1519*

**Convolution**

- Automatic Audio Chord Recognition With MIDI-Trained Deep Feature and BLSTM-CRF Sequence Decoding Model. Wu, Y., +, *TASLP Feb. 2019 355-366*
- Siamese Style Convolutional Neural Networks for Sound Search by Vocal Imitation. Zhang, Y., +, *TASLP Feb. 2019 429-441*
- Underdetermined Reverberant Blind Source Separation: Sparse Approaches for Multiplicative and Convolutional Narrowband Approximation. Feng, F., +, *TASLP Feb. 2019 442-456*

**Convolutional codes**

- Convolutional Neural Networks to Enhance Coded Speech. Zhao, Z., +, *TASLP April 2019 663-678*

**Convolutional neural nets**

- A New Framework for CNN-Based Speech Enhancement in the Time Domain. Pandey, A., +, *TASLP July 2019 1179-1188*
- Convolutional Neural Networks to Enhance Coded Speech. Zhao, Z., +, *TASLP April 2019 663-678*
- Deep Learning for Database Mapping and Asking Clarification Questions in Dialogue Systems. Korpusik, M., +, *TASLP Aug. 2019 1321-1334*
- Emotion-Semantic-Enhanced Neural Network. Yang, G., +, *TASLP March 2019 531-543*
- InverSynth: Deep Estimation of Synthesizer Parameter Configurations From Audio Signals. Barkan, O., +, *TASLP Dec. 2019 2385-2396*
- Near-Field Acoustic Source Localization Using Spherical Harmonic Features. Varanasi, V., +, *TASLP Dec. 2019 2054-2066*
- Neural Machine Translation With Sentence-Level Topic Context. Chen, K., +, *TASLP Dec. 2019 1970-1984*
- Neural Predictive Coding Using Convolutional Neural Networks Toward Unsupervised Learning of Speaker Characteristics. Jati, A., +, *TASLP Oct. 2019 1577-1589*
- RS-CAE-Based AR-Wiener Filtering and Harmonic Recovery for Speech Enhancement. Yang, Y., +, *TASLP Nov. 2019 1752-1762*
- Sequence Labeling With Deep Gated Dual Path CNN. Zhao, L., +, *TASLP Dec. 2019 2326-2335*
- Tailoring an Interpretable Neural Language Model. Zhang, Y., +, *TASLP July 2019 1164-1178*

**Correlation methods**

- Multiple Sound Source Counting and Localization Based on TF-Wise Spatial Spectrum Clustering. Yang, B., +, *TASLP Aug. 2019 1241-1255*
- Relative Acoustic Transfer Function Estimation in Wireless Acoustic Sensor Networks. Zhang, J., +, *TASLP Oct. 2019 1507-1519*

Robust Bayesian Pitch Tracking Based on the Harmonic Model. *Shi, L., +, TASLP Nov. 2019 1737-1751*

Robust Pitch Estimation and Tracking For Speakers Based on Subband Encoding and The Generalized Labeled Multi-Bernoulli Filter. *Lin, S., TASLP April 2019 827-841*

RS-CAE-Based AR-Wiener Filtering and Harmonic Recovery for Speech Enhancement. *Yang, Y., +, TASLP Nov. 2019 1752-1762*

#### Correlation theory

On the Relationship Between Short-Time Objective Intelligibility and Short-Time Spectral-Amplitude Mean-Square Error for Speech Enhancement. *Kolbaek, M., +, TASLP Feb. 2019 283-295*

#### Covariance analysis

Gaussian Modeling-Based Multichannel Audio Source Separation Exploiting Generic Source Spectral Model. *Duong, T.T.H., +, TASLP Jan. 2019 32-43*

Relative Acoustic Transfer Function Estimation in Wireless Acoustic Sensor Networks. *Zhang, J., +, TASLP Oct. 2019 1507-1519*

#### Covariance matrices

Noise Covariance Matrix Estimation for Rotating Microphone Arrays. *Moore, A.H., +, TASLP March 2019 519-530*

Semi-Supervised Multichannel Speech Enhancement With a Deep Speech Prior. *Sekiguchi, K., +, TASLP Dec. 2019 2197-2212*

Unsupervised Speech Enhancement Based on Multichannel NMF-Informed Beamforming for Noise-Robust Automatic Speech Recognition. *Shimada, K., +, TASLP May 2019 960-971*

#### Customer services

Dynamic Working Memory for Context-Aware Response Generation. *Xu, Z., +, TASLP Sept. 2019 1419-1431*

### D

#### Data mining

Global Inference for Aspect and Opinion Terms Co-Extraction Based on Multi-Task Neural Networks. *Yu, J., +, TASLP Jan. 2019 168-177*

Sentiment Lexicon Construction With Hierarchical Supervision Topic Model. *Deng, D., +, TASLP April 2019 704-718*

Sparse Self-Attention LSTM for Sentiment Lexicon Construction. *Deng, D., +, TASLP Nov. 2019 1777-1790*

#### Data privacy

Privacy-Preserving iVector-Based Speaker Verification. *Rahulamathavan, Y., +, TASLP March 2019 496-506*

#### Decoding

ACVAE-VC: Non-Parallel Voice Conversion With Auxiliary Classifier Variational Autoencoder. *Kameoka, H., +, TASLP Sept. 2019 1432-1443*

Forward-Backward Decoding Sequence for Regularizing End-to-End TTS. *Zheng, Y., +, TASLP Dec. 2019 2067-2079*

Information Loss in the Human Auditory System. *Jahromi, M.Z., +, TASLP March 2019 472-481*

Latent Attribute Based Hierarchical Decoder for Neural Machine Translation. *Liu, X., +, TASLP Dec. 2019 2103-2112*

#### Deconvolution

Comparative Analysis of Generalized Sidelobe Cancellation and Multi-Channel Linear Prediction for Speech Dereverberation and Noise Reduction. *Dietzen, T., +, TASLP March 2019 544-558*

#### Diodes

Linear Multistep Discretization Methods With Variable Step-Size in Nonlinear Wave Digital Structures for Virtual Analog Modeling. *Bernardini, A., +, TASLP Nov. 2019 1763-1776*

#### Direction-of-arrival estimation

A Robust Target Linearly Constrained Minimum Variance Beamformer With Spatial Cues Preservation for Binaural Hearing Aids. *As'ad, H., +, TASLP Oct. 2019 1549-1563*

DOA-Based Three-Dimensional Node Geometry Calibration in Acoustic Sensor Networks and Its Cramér-Rao Bound and Sensitivity Analysis. *Wang, R., +, TASLP Sept. 2019 1455-1468*

Indoor Multiple Sound Source Localization via Multi-Dimensional Assignment Data Association. *Dang, X., +, TASLP Dec. 2019 1944-1956*

Joint Acoustic Localization and Dereverberation Through Plane Wave Decomposition and Sparse Regularization. *Antonello, N., +, TASLP Dec. 2019 1893-1905*

Near-Field Acoustic Source Localization Using Spherical Harmonic Features. *Varanasi, V., +, TASLP Dec. 2019 2054-2066*

Robust Speaker Localization Guided by Deep Learning-Based Time-Frequency Masking. *Wang, Z., +, TASLP Jan. 2019 178-188*

Sound Localization Based on Phase Difference Enhancement Using Deep Neural Networks. *Pak, J., +, TASLP Aug. 2019 1335-1345*

#### Discrete Fourier transforms

Constrained Learned Feature Extraction for Acoustic Scene Classification. *Zhang, T., +, TASLP Aug. 2019 1216-1228*

Iterative DFT-Domain Inverse Filter Optimization Using a Weighted Least-Squares Criterion. *Schneider, M., +, TASLP Dec. 2019 1957-1969*

#### Distortion

A Convex Approximation of the Relaxed Binaural Beamforming Optimization Problem. *Koutrouvelis, A.I., +, TASLP Feb. 2019 321-331*

Subjective and Objective Assessment of Monaural and Binaural Aspects of Audio Quality. *Flesner, J., +, TASLP July 2019 1112-1125*

#### Divide and conquer methods

Divide and Conquer: A Deep CASA Approach to Talker-Independent Monaural Speaker Separation. *Liu, Y., +, TASLP Dec. 2019 2092-2102*

### E

#### Echo suppression

Low-Complexity Multi-Microphone Acoustic Echo Control in the Short-Time Fourier Transform Domain. *Luis Valero, M., +, TASLP March 2019 595-609*

Recursive Least-Squares Algorithms for the Identification of Low-Rank Systems. *Elisei-Iliescu, C., +, TASLP May 2019 903-918*

State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance. *Park, J., +, TASLP Oct. 2019 1520-1534*

#### Eigenvalues and eigenfunctions

Decentralized Two-Channel Active Noise Control for Single Frequency by Shaping Matrix Eigenvalues. *Zhang, G., +, TASLP Jan. 2019 44-52*

Eigenvector-Based Speech Mask Estimation for Multi-Channel Speech Enhancement. *Pfeifenberger, L., +, TASLP Dec. 2019 2162-2172*

Many-to-Many and Completely Parallel-Data-Free Voice Conversion Based on Eigenspace DNN. *Hashimoto, T., +, TASLP Feb. 2019 332-341*

Methods of Extending a Generalized Sidelobe Canceller With External Microphones. *Ali, R., +, TASLP Sept. 2019 1349-1364*

Relative Acoustic Transfer Function Estimation in Wireless Acoustic Sensor Networks. *Zhang, J., +, TASLP Oct. 2019 1507-1519*

#### Emotion recognition

Curriculum Learning for Speech Emotion Recognition From Crowdsourced Labels. *Lotfian, R., +, TASLP April 2019 815-826*

Emotion-Semantic-Enhanced Neural Network. *Yang, G., +, TASLP March 2019 531-543*

Emotional Voice Conversion Using Dual Supervised Adversarial Networks With Continuous Wavelet Transform F0 Features. *Luo, Z., +, TASLP Oct. 2019 1535-1548*

Positive Emotion Elicitation in Chat-Based Dialogue Systems. *Lubis, N., +, TASLP April 2019 866-877*

Speech Emotion Classification Using Attention-Based LSTM. *Xie, Y., +, TASLP Nov. 2019 1675-1685*

#### Entropy

Attention With Sparsity Regularization for Neural Machine Translation and Summarization. *Zhang, J., +, TASLP March 2019 507-518*

Deep Learning for Database Mapping and Asking Clarification Questions in Dialogue Systems. *Korpusik, M., +, TASLP Aug. 2019 1321-1334*

#### Equalizers

Equalization of Nonlinear Propagation Distortion in Cylindrical Waveguides. *Payal, S.S., +, TASLP June 2019 1072-1084*

Neurally Controlled Graphic Equalizer. *Valimaki, V., +, TASLP Dec. 2019 2140-2149*

Robust Personal Audio Geometry Optimization in the SVD-Based Modal Domain. *Zhu, Q., +, TASLP March 2019 610-620*

#### Error statistics

Adversarial Regularization for Attention Based End-to-End Robust Speech Recognition. *Sun, S., +, TASLP Nov. 2019 1826-1838*

Speech Enhancement Based on Teacher–Student Deep Learning Using Improved Speech Presence Probability for Noise-Robust Speech Recognition. *Tu, Y., +, TASLP Dec. 2019 2080-2091*

#### Estimation theory

Eigenvector-Based Speech Mask Estimation for Multi-Channel Speech Enhancement. *Pfeifenberger, L., +, TASLP Dec. 2019 2162-2172*

Noise Covariance Matrix Estimation for Rotating Microphone Arrays. *Moore, A.H., +, TASLP March 2019 519-530*

Robust Pitch Estimation and Tracking For Speakers Based on Subband Encoding and The Generalized Labeled Multi-Bernoulli Filter. *Lin, S., TASLP April 2019 827-841*

Sound Localization Based on Phase Difference Enhancement Using Deep Neural Networks. *Pak, J., +, TASLP Aug. 2019 1335-1345*

#### Evolutionary computation

Evolution-Strategy-Based Automation of System Development for High-Performance Speech Recognition. *Moriya, T., +, TASLP Jan. 2019 77-88*

#### Expectation-maximization algorithms

A Bayesian Hierarchical Model for Speech Enhancement With Time-Varying Audio Channel. *Laufer, Y., +, TASLP Jan. 2019 225-239*

Complex ISNMF: A Phase-Aware Model for Monaural Audio Source Separation. *Magron, P., +, TASLP Jan. 2019 20-31*

Dirichlet Latent Variable Model: A Dynamic Model Based on Dirichlet Prior for Audio Processing. *Kumar, A., +, TASLP May 2019 919-931*

Estimation of Fundamental Frequencies in Stereophonic Music Mixtures. *Hansen, M.W., +, TASLP Feb. 2019 296-310*

Gaussian Modeling-Based Multichannel Audio Source Separation Exploiting Generic Source Spectral Model. *Duong, T.T.H., +, TASLP Jan. 2019 32-43*

Late Reverberation Cancellation Using Bayesian Estimation of Multi-Channel Linear Predictors and Student's t-Source Prior. *Chetupalli, S.R., +, TASLP June 2019 1007-1018*

Underdetermined Reverberant Blind Source Separation: Sparse Approaches for Multiplicative and Convolutional Narrowband Approximation. *Feng, F., +, TASLP Feb. 2019 442-456*

## F

#### Feature extraction

A Gated Recurrent Convolutional Neural Network for Robust Spoofing Detection. *Gomez-Alanis, A., +, TASLP Dec. 2019 1985-1999*

Audio–Visual Deep Clustering for Speech Separation. *Lu, R., +, TASLP Nov. 2019 1697-1712*

Automatic Audio Chord Recognition With MIDI-Trained Deep Feature and BLSTM-CRF Sequence Decoding Model. *Wu, Y., +, TASLP Feb. 2019 355-366*

BFGAN: Backward and Forward Generative Adversarial Networks for Lexically Constrained Sentence Generation. *Liu, D., +, TASLP Dec. 2019 2350-2361*

Complex-Valued Restricted Boltzmann Machine for Speaker-Dependent Speech Parameterization From Complex Spectra. *Nakashika, T., +, TASLP Feb. 2019 244-254*

Constrained Learned Feature Extraction for Acoustic Scene Classification. *Zhang, T., +, TASLP Aug. 2019 1216-1228*

Detection of Nasalized Voiced Stops in Cleft Palate Speech Using Epoch-Synchronous Features. *Vikram, C.M., +, TASLP July 2019 1189-1200*

Emotional Voice Conversion Using Dual Supervised Adversarial Networks With Continuous Wavelet Transform F0 Features. *Luo, Z., +, TASLP Oct. 2019 1535-1548*

Enhanced Feature Summarizing for Effective Cover Song Identification. *Hu, J., +, TASLP Dec. 2019 2113-2126*

Global-Local Mutual Attention Model for Text Classification. *Ma, Q., +, TASLP Dec. 2019 2127-2139*

Improving Aspect Term Extraction With Bidirectional Dependency Tree Representation. *Luo, H., +, TASLP July 2019 1201-1212*

Mixed-Bandwidth Cross-Channel Speech Recognition via Joint Optimization of DNN-Based Bandwidth Expansion and Acoustic Modeling. *Gao, J., +, TASLP March 2019 559-571*

RS-CAE-Based AR-Wiener Filtering and Harmonic Recovery for Speech Enhancement. *Yang, Y., +, TASLP Nov. 2019 1752-1762*

Sequence-to-Sequence Acoustic Modeling for Voice Conversion. *Zhang, J., +, TASLP March 2019 631-644*

Siamese Style Convolutional Neural Networks for Sound Search by Vocal Imitation. *Zhang, Y., +, TASLP Feb. 2019 429-441*

Sound Event Detection and Time–Frequency Segmentation from Weakly Labeled Data. *Kong, Q., +, TASLP April 2019 777-787*

Sparse Self-Attention LSTM for Sentiment Lexicon Construction. *Deng, D., +, TASLP Nov. 2019 1777-1790*

Speech Emotion Classification Using Attention-Based LSTM. *Xie, Y., +, TASLP Nov. 2019 1675-1685*

Statistical Regression Models for Noise Robust F0 Estimation Using Recurrent Deep Neural Networks. *Kato, A., +, TASLP Dec. 2019 2336-2349*

Time-Contrastive Learning Based Deep Bottleneck Features for Text-Dependent Speaker Verification. *Sarkar, A.K., +, TASLP Aug. 2019 1267-1279*

#### Feedforward

Exploiting Future Word Contexts in Neural Network Language Models for Speech Recognition. *Chen, X., +, TASLP Sept. 2019 1444-1454*

#### Feedforward neural networks

Automatic Audio Chord Recognition With MIDI-Trained Deep Feature and BLSTM-CRF Sequence Decoding Model. *Wu, Y., +, TASLP Feb. 2019 355-366*

Gated Residual Networks With Dilated Convolutions for Monaural Speech Enhancement. *Tan, K., +, TASLP Jan. 2019 189-198*

GlottNet—A Raw Waveform Model for the Glottal Excitation in Statistical Parametric Speech Synthesis. *Juvela, L., +, TASLP June 2019 1019-1030*

Neurally Controlled Graphic Equalizer. *Valimaki, V., +, TASLP Dec. 2019 2140-2149*

Siamese Style Convolutional Neural Networks for Sound Search by Vocal Imitation. *Zhang, Y., +, TASLP Feb. 2019 429-441*

#### Filtering theory

A Bayesian Hierarchical Model for Speech Enhancement With Time-Varying Audio Channel. *Laufer, Y., +, TASLP Jan. 2019 225-239*

Causal MSE-Optimal Filters for Personal Audio Subject to Constrained Contrast. *Widmark, S., TASLP May 2019 972-987*

Eigenvector-Based Speech Mask Estimation for Multi-Channel Speech Enhancement. *Pfeifenberger, L., +, TASLP Dec. 2019 2162-2172*

Fast Algorithms for Acoustic Impulse Response Shaping. *Krishnan, L., +, TASLP Feb. 2019 392-403*

Glottal Inverse Filtering Using Probabilistic Weighted Linear Prediction. *M.V. A.R., +, TASLP Jan. 2019 114-124*

Multichannel Online Dereverberation Based on Spectral Magnitude Inverse Filtering. *Li, X., +, TASLP Sept. 2019 1365-1377*

Multichannel Speech Separation and Enhancement Using the Convolutional Transfer Function. *Li, X., +, TASLP March 2019 645-659*

Neurally Controlled Graphic Equalizer. *Valimaki, V., +, TASLP Dec. 2019 2140-2149*

RS-CAE-Based AR-Wiener Filtering and Harmonic Recovery for Speech Enhancement. *Yang, Y., +, TASLP Nov. 2019 1752-1762*

#### Filters

Newton–Raphson Solution of Nonlinear Delay-Free Loop Filter Networks. *Fontana, F., +, TASLP Oct. 2019 1590-1600*

#### Finite difference time-domain analysis

Directional Sources in Wave-Based Acoustic Simulation. *Bilbao, S., +, TASLP Feb. 2019 415-428*

#### Finite element analysis

MRI-Based Vocal Tract Representations for the Three-Dimensional Finite Element Synthesis of Diphthongs. *Arnela, M., +, TASLP Dec. 2019 2173-2182*

#### FIR filters

Iterative DFT-Domain Inverse Filter Optimization Using a Weighted Least-Squares Criterion. *Schneider, M., +, TASLP Dec. 2019 1957-1969*

Recursive Least-Squares Algorithms for the Identification of Low-Rank Systems. *Elisei-Iliescu, C.*, +, *TASLP May 2019 903-918*

#### Fourier transforms

A New Framework for CNN-Based Speech Enhancement in the Time Domain. *Pandey, A.*, +, *TASLP July 2019 1179-1188*

Comparative Analysis of Generalized Sidelobe Cancellation and Multi-Channel Linear Prediction for Speech Dereverberation and Noise Reduction. *Dietzen, T.*, +, *TASLP March 2019 544-558*

Complex ISNMF: A Phase-Aware Model for Monaural Audio Source Separation. *Magron, P.*, +, *TASLP Jan. 2019 20-31*

Late Reverberation Cancellation Using Bayesian Estimation of Multi-Channel Linear Predictors and Student's t-Source Prior. *Chetupalli, S.R.*, +, *TASLP June 2019 1007-1018*

Low-Complexity Multi-Microphone Acoustic Echo Control in the Short-Time Fourier Transform Domain. *Luis Valero, M.*, +, *TASLP March 2019 595-609*

Multichannel Online Dereverberation Based on Spectral Magnitude Inverse Filtering. *Li, X.*, +, *TASLP Sept. 2019 1365-1377*

Multichannel Speech Separation and Enhancement Using the Convolutional Transfer Function. *Li, X.*, +, *TASLP March 2019 645-659*

Phase-Aware Speech Enhancement Based on Deep Neural Networks. *Zheng, N.*, +, *TASLP Jan. 2019 63-76*

Underdetermined Reverberant Blind Source Separation: Sparse Approaches for Multiplicative and Convolutional Narrowband Approximation. *Feng, F.*, +, *TASLP Feb. 2019 442-456*

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Robust Bayesian Pitch Tracking Based on the Harmonic Model. *Shi, L.*, +, *TASLP Nov. 2019 1737-1751*

Statistical Regression Models for Noise Robust F0 Estimation Using Recurrent Deep Neural Networks. *Kato, A.*, +, *TASLP Dec. 2019 2336-2349*

#### Frequency modulation

InverSynth: Deep Estimation of Synthesizer Parameter Configurations From Audio Signals. *Barkan, O.*, +, *TASLP Dec. 2019 2385-2396*

#### Frequency-domain analysis

Causal MSE-Optimal Filters for Personal Audio Subject to Constrained Contrast. *Widmark, S.*, *TASLP May 2019 972-987*

Iterative DFT-Domain Inverse Filter Optimization Using a Weighted Least-Squares Criterion. *Schneider, M.*, +, *TASLP Dec. 2019 1957-1969*

Shape Control of Discrete Generalized Gaussian Distributions for Frequency-Domain Audio Coding. *Sugiura, R.*, +, *TASLP Dec. 2019 2234-2248*

#### Function approximation

A Theory on Deep Neural Network Based Vector-to-Vector Regression With an Illustration of Its Expressive Power in Speech Enhancement. *Qi, J.*, +, *TASLP Dec. 2019 1932-1943*

## G

#### Gain control

Neurally Controlled Graphic Equalizer. *Valimaki, V.*, +, *TASLP Dec. 2019 2140-2149*

#### Gamma distribution

Analysis of Inter-Pausal Units in Indian Languages and Its Application to Text-to-Speech Synthesis. *Prakash, J.J.*, +, *TASLP Oct. 2019 1616-1628*

Late Reverberation Cancellation Using Bayesian Estimation of Multi-Channel Linear Predictors and Student's t-Source Prior. *Chetupalli, S.R.*, +, *TASLP June 2019 1007-1018*

#### Gaussian distribution

Late Reverberation Cancellation Using Bayesian Estimation of Multi-Channel Linear Predictors and Student's t-Source Prior. *Chetupalli, S.R.*, +, *TASLP June 2019 1007-1018*

Shape Control of Discrete Generalized Gaussian Distributions for Frequency-Domain Audio Coding. *Sugiura, R.*, +, *TASLP Dec. 2019 2234-2248*

Using Generalized Gaussian Distributions to Improve Regression Error Modeling for Deep Learning-Based Speech Enhancement. *Chai, L.*, +, *TASLP Dec. 2019 1919-1931*

#### Gaussian processes

A Bayesian Hierarchical Model for Speech Enhancement With Time-Varying Audio Channel. *Laufer, Y.*, +, *TASLP Jan. 2019 225-239*

Complex ISNMF: A Phase-Aware Model for Monaural Audio Source Separation. *Magron, P.*, +, *TASLP Jan. 2019 20-31*

Discriminative Neural Embedding Learning for Short-Duration Text-Independent Speaker Verification. *Wang, S.*, +, *TASLP Nov. 2019 1686-1696*

Erratum for "Nonlinear Audio Systems Identification Through Audio Input Gaussianization" [Jan 14 41-53]. *TASLP Jan. 2019 240*

Gaussian Modeling-Based Multichannel Audio Source Separation Exploiting Generic Source Spectral Model. *Duong, T.T.H.*, +, *TASLP Jan. 2019 32-43*

Group Sparse Representation With WaveNet Vocoder Adaptation for Spectrum and Prosody Conversion. *Sisman, B.*, +, *TASLP June 2019 1085-1097*

Information Loss in the Human Auditory System. *Jahromi, M.Z.*, +, *TASLP March 2019 472-481*

Many-to-Many and Completely Parallel-Data-Free Voice Conversion Based on Eigenspace DNN. *Hashimoto, T.*, +, *TASLP Feb. 2019 332-341*

Sequence-to-Sequence Acoustic Modeling for Voice Conversion. *Zhang, J.*, +, *TASLP March 2019 631-644*

Statistical Parametric Speech Synthesis Using Deep Gaussian Processes. *Koriyama, T.*, +, *TASLP May 2019 948-959*

Time-Contrastive Learning Based Deep Bottleneck Features for Text-Dependent Speaker Verification. *Sarkar, A.K.*, +, *TASLP Aug. 2019 1267-1279*

Toward Fail-Safe Speaker Recognition: Trial-Based Calibration With a Reject Option. *Ferrer, L.*, +, *TASLP Jan. 2019 140-153*

Unsupervised Speech Representation Learning Using WaveNet Autoencoders. *Chorowski, J.*, +, *TASLP Dec. 2019 2041-2053*

Using Generalized Gaussian Distributions to Improve Regression Error Modeling for Deep Learning-Based Speech Enhancement. *Chai, L.*, +, *TASLP Dec. 2019 1919-1931*

#### Generalization (artificial intelligence)

Gated Residual Networks With Dilated Convolutions for Monaural Speech Enhancement. *Tan, K.*, +, *TASLP Jan. 2019 189-198*

#### Geometry

A Geometric Model for Prediction of Spatial Aliasing in 2.5D Sound Field Synthesis. *Winter, F.*, +, *TASLP June 2019 1031-1046*

DOA-Based Three-Dimensional Node Geometry Calibration in Acoustic Sensor Networks and Its Cramér–Rao Bound and Sensitivity Analysis. *Wang, R.*, +, *TASLP Sept. 2019 1455-1468*

#### Gradient methods

Adversarial Regularization for Attention Based End-to-End Robust Speech Recognition. *Sun, S.*, +, *TASLP Nov. 2019 1826-1838*

Latent Question Interpretation Through Variational Adaptation. *Parshakova, T.*, +, *TASLP Nov. 2019 1713-1724*

Multichannel Online Dereverberation Based on Spectral Magnitude Inverse Filtering. *Li, X.*, +, *TASLP Sept. 2019 1365-1377*

Recursive Least-Squares Algorithms for the Identification of Low-Rank Systems. *Elisei-Iliescu, C.*, +, *TASLP May 2019 903-918*

#### Graph theory

AgentGraph: Toward Universal Dialogue Management With Structured Deep Reinforcement Learning. *Chen, L.*, +, *TASLP Sept. 2019 1378-1391*

## H

#### Harmonic distortion

Equalization of Nonlinear Propagation Distortion in Cylindrical Waveguides. *Payal, S.S.*, +, *TASLP June 2019 1072-1084*

#### Headphones

On the Influence of Transfer Function Noise on Sound Zone Control in a Room. *Moller, M.B.*, +, *TASLP Sept. 2019 1405-1418*

#### Hearing

A New Ratio Mask Representation for CASA-Based Speech Enhancement. *Bao, F.*, +, *TASLP Jan. 2019 7-19*

Information Loss in the Human Auditory System. *Jahromi, M.Z.*, +, *TASLP March 2019 472-481*

#### Hearing aids

A Robust Target Linearly Constrained Minimum Variance Beamformer With Spatial Cues Preservation for Binaural Hearing Aids. *As'ad, H.*, +, *TASLP Oct. 2019 1549-1563*

Asymmetric Coding for Rate-Constrained Noise Reduction in Binaural Hearing Aids. *Amini, J.*, +, *TASLP Jan. 2019 154-167*

Model-Based Speech Enhancement for Intelligibility Improvement in Binaural Hearing Aids. *Kavalekalam, M.S.*, +, *TASLP Jan. 2019 99-113*

Null-Steering Beamformer-Based Feedback Cancellation for Multi-Microphone Hearing Aids With Incoming Signal Preservation. *Schepker, H.*, +, *TASLP April 2019 679-691*

Perceptually Relevant Preservation of Interaural Time Differences in Binaural Hearing Aids. *Itturriet, F.P.*, +, *TASLP April 2019 753-764*

Speech Enhancement Using Noise Estimation With Dynamic Quantile Tracking. *Tiwari, N.*, +, *TASLP Dec. 2019 2301-2312*

#### Hidden Markov models

Acoustic Topic Model for Scene Analysis With Intermittently Missing Observations. *Imoto, K.*, +, *TASLP Feb. 2019 367-382*

Articulatory and Spectrum Information Fusion Based on Deep Recurrent Neural Networks. *Yu, J.*, +, *TASLP April 2019 742-752*

Automatic Identification of Hard and Soft Bone Tissues by Analyzing Drilling Sounds. *Zakeri, V.*, +, *TASLP Feb. 2019 404-414*

Bird Species Recognition Using Unsupervised Modeling of Individual Vocalization Elements. *Jancovic, P.*, +, *TASLP May 2019 932-947*

Complex-Valued Restricted Boltzmann Machine for Speaker-Dependent Speech Parameterization From Complex Spectra. *Nakashika, T.*, +, *TASLP Feb. 2019 244-254*

Detection of Nasalized Voiced Stops in Cleft Palate Speech Using Epoch-Synchronous Features. *Vikram, C.M.*, +, *TASLP July 2019 1189-1200*

Evolution-Strategy-Based Automation of System Development for High-Performance Speech Recognition. *Moriya, T.*, +, *TASLP Jan. 2019 77-88*

Speaker Recognition With Random Digit Strings Using Uncertainty Normalized HMM-Based i-Vectors. *Maghsoodi, N.*, +, *TASLP Nov. 2019 1815-1825*

#### Higher order statistics

A Robust Target Linearly Constrained Minimum Variance Beamformer With Spatial Cues Preservation for Binaural Hearing Aids. *As'ad, H.*, +, *TASLP Oct. 2019 1549-1563*

#### Human computer interaction

Positive Emotion Elicitation in Chat-Based Dialogue Systems. *Lubis, N.*, +, *TASLP April 2019 866-877*

Switching Divergences for Spectral Learning in Blind Speech Dereverberation. *Ibarrola, F.J.*, +, *TASLP May 2019 881-891*

#### Humanities

Story Ending Selection by Finding Hints From Pairwise Candidate Endings. *Zhou, M.*, +, *TASLP April 2019 719-729*

## I

#### IEEE publishing

List of Reviewers. *TASLP Dec. 2019 2397-2401*

#### Image classification

Constrained Learned Feature Extraction for Acoustic Scene Classification. *Zhang, T.*, +, *TASLP Aug. 2019 1216-1228*

#### Image reconstruction

Synthesizing 3D Trump: Predicting and Visualizing the Relationship Between Text, Speech, and Articulatory Movements. *Yu, J.*, +, *TASLP Dec. 2019 2223-2233*

#### Image segmentation

Time-Contrastive Learning Based Deep Bottleneck Features for Text-Dependent Speaker Verification. *Sarkar, A.K.*, +, *TASLP Aug. 2019 1267-1279*

#### Inductors

Linear Multistep Discretization Methods With Variable Step-Size in Nonlinear Wave Digital Structures for Virtual Analog Modeling. *Bernardini, A.*, +, *TASLP Nov. 2019 1763-1776*

#### Inference mechanisms

Adversarial Approximate Inference for Speech to Electroglottograph Conversion. *A. P., P.*, +, *TASLP Dec. 2019 2183-2196*

Global Inference for Aspect and Opinion Terms Co-Extraction Based on Multi-Task Neural Networks. *Yu, J.*, +, *TASLP Jan. 2019 168-177*

#### Information retrieval

Enhanced Feature Summarizing for Effective Cover Song Identification. *Hu, J.*, +, *TASLP Dec. 2019 2113-2126*

Positive Emotion Elicitation in Chat-Based Dialogue Systems. *Lubis, N.*, +, *TASLP April 2019 866-877*

Semantic Speech Retrieval With a Visually Grounded Model of Untranscribed Speech. *Kamper, H.*, +, *TASLP Jan. 2019 89-98*

#### Interactive programming

Dynamic Working Memory for Context-Aware Response Generation. *Xu, Z.*, +, *TASLP Sept. 2019 1419-1431*

#### Interactive systems

AgentGraph: Toward Universal Dialogue Management With Structured Deep Reinforcement Learning. *Chen, L.*, +, *TASLP Sept. 2019 1378-1391*

Deep Learning for Database Mapping and Asking Clarification Questions in Dialogue Systems. *Korpusik, M.*, +, *TASLP Aug. 2019 1321-1334*

Dynamic Working Memory for Context-Aware Response Generation. *Xu, Z.*, +, *TASLP Sept. 2019 1419-1431*

Improving Conditional Sequence Generative Adversarial Networks by Stepwise Evaluation. *Tuan, Y.*, +, *TASLP April 2019 788-798*

Positive Emotion Elicitation in Chat-Based Dialogue Systems. *Lubis, N.*, +, *TASLP April 2019 866-877*

#### Interference suppression

Adversarial Regularization for Attention Based End-to-End Robust Speech Recognition. *Sun, S.*, +, *TASLP Nov. 2019 1826-1838*

#### Intermodulation distortion

Equalization of Nonlinear Propagation Distortion in Cylindrical Waveguides. *Payal, S.S.*, +, *TASLP June 2019 1072-1084*

#### Internet

TEND: A Target-Dependent Representation Learning Framework for News Document. *Duan, J.*, +, *TASLP Dec. 2019 2313-2325*

#### Interpolation

Directional Equalization of Sparse Head-Related Transfer Function Sets for Spatial Upsampling. *Porschmann, C.*, +, *TASLP June 2019 1060-1071*

Directional Sources in Wave-Based Acoustic Simulation. *Bilbao, S.*, +, *TASLP Feb. 2019 415-428*

Efficient Representation and Sparse Sampling of Head-Related Transfer Functions Using Phase-Correction Based on Ear Alignment. *Ben-Hur, Z.*, +, *TASLP Dec. 2019 2249-2262*

Near-Field Acoustic Source Localization Using Spherical Harmonic Features. *Varanasi, V.*, +, *TASLP Dec. 2019 2054-2066*

#### Inverse problems

InverSynth: Deep Estimation of Synthesizer Parameter Configurations From Audio Signals. *Barkan, O.*, +, *TASLP Dec. 2019 2385-2396*

Joint Acoustic Localization and Dereverberation Through Plane Wave Decomposition and Sparse Regularization. *Antonello, N.*, +, *TASLP Dec. 2019 1893-1905*

#### Inverse transforms

Directional Equalization of Sparse Head-Related Transfer Function Sets for Spatial Upsampling. *Porschmann, C.*, +, *TASLP June 2019 1060-1071*

#### Iterative methods

Independent Deeply Learned Matrix Analysis for Determined Audio Source Separation. *Makishima, N.*, +, *TASLP Oct. 2019 1601-1615*

Iterative DFT-Domain Inverse Filter Optimization Using a Weighted Least-Squares Criterion. *Schneider, M.*, +, *TASLP Dec. 2019 1957-1969*

Linear Multistep Discretization Methods With Variable Step-Size in Nonlinear Wave Digital Structures for Virtual Analog Modeling. *Bernardini, A.*, +, *TASLP Nov. 2019 1763-1776*

Multiple Sound Source Counting and Localization Based on TF-Wise Spatial Spectrum Clustering. *Yang, B.*, +, *TASLP Aug. 2019 1241-1255*

Newton-Raphson Solution of Nonlinear Delay-Free Loop Filter Networks. *Fontana, F.*, +, *TASLP Oct. 2019 1590-1600*

Recursive Least-Squares Algorithms for the Identification of Low-Rank Systems. *Elisei-Iliescu, C.*, +, *TASLP May 2019 903-918*

Two-Stage Deep Learning for Noisy-Reverberant Speech Enhancement. *Zhao, Y.*, +, *TASLP Jan. 2019 53-62*



## K

**Kalman filters**

- A Bayesian Hierarchical Model for Speech Enhancement With Time-Varying Audio Channel. *Lauffer, Y.*, +, *TASLP Jan. 2019 225-239*
- Model-Based Speech Enhancement for Intelligibility Improvement in Binaural Hearing Aids. *Kavalekalam, M.S.*, +, *TASLP Jan. 2019 99-113*
- Modulation-Domain Kalman Filtering for Monaural Blind Speech Denoising and Dereverberation. *Dionelis, N.*, +, *TASLP April 2019 799-814*
- State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance. *Park, J.*, +, *TASLP Oct. 2019 1520-1534*

**Knowledge based systems**

- Knowledge Base Question Answering With a Matching-Aggregation Model and Question-Specific Contextual Relations. *Lan, Y.*, +, *TASLP Oct. 2019 1629-1638*

## L

**Language translation**

- Attention With Sparsity Regularization for Neural Machine Translation and Summarization. *Zhang, J.*, +, *TASLP March 2019 507-518*
- Future-Aware Knowledge Distillation for Neural Machine Translation. *Zhang, B.*, +, *TASLP Dec. 2019 2278-2287*
- Latent Attribute Based Hierarchical Decoder for Neural Machine Translation. *Liu, X.*, +, *TASLP Dec. 2019 2103-2112*
- Neural Machine Translation With Sentence-Level Topic Context. *Chen, K.*, +, *TASLP Dec. 2019 1970-1984*
- Phonology-Augmented Statistical Framework for Machine Transliteration Using Limited Linguistic Resources. *Ngo, G.H.*, +, *TASLP Jan. 2019 199-211*
- Semi-Supervised Neural Machine Translation via Marginal Distribution Estimation. *Wang, Y.*, +, *TASLP Oct. 2019 1564-1576*
- STD: An Automatic Evaluation Metric for Machine Translation Based on Word Embeddings. *Li, P.*, +, *TASLP Oct. 2019 1497-1506*

**Learning (artificial intelligence)**

- A Bilingual Adversarial Autoencoder for Unsupervised Bilingual Lexicon Induction. *Bai, X.*, +, *TASLP Oct. 2019 1639-1648*
- A Joint Learning Algorithm for Complex-Valued T-F Masks in Deep Learning-Based Single-Channel Speech Enhancement Systems. *Lee, J.*, +, *TASLP June 2019 1098-1108*
- A Multi-Stage Algorithm for Acoustic Physical Model Parameters Estimation. *Gabrielli, L.*, +, *TASLP Aug. 2019 1229-1240*
- A New Framework for CNN-Based Speech Enhancement in the Time Domain. *Pandey, A.*, +, *TASLP July 2019 1179-1188*
- ACVAE-VC: Non-Parallel Voice Conversion With Auxiliary Classifier Variational Autoencoder. *Kameoka, H.*, +, *TASLP Sept. 2019 1432-1443*
- Advancing Acoustic-to-Word CTC Model With Attention and Mixed-Units. *Das, A.*, +, *TASLP Dec. 2019 1880-1892*
- Adversarial Approximate Inference for Speech to Electroglottograph Conversion. *A. P., P.*, +, *TASLP Dec. 2019 2183-2196*
- Adversarial Regularization for Attention Based End-to-End Robust Speech Recognition. *Sun, S.*, +, *TASLP Nov. 2019 1826-1838*
- AgentGraph: Toward Universal Dialogue Management With Structured Deep Reinforcement Learning. *Chen, L.*, +, *TASLP Sept. 2019 1378-1391*
- Audio-Visual Deep Clustering for Speech Separation. *Lu, R.*, +, *TASLP Nov. 2019 1697-1712*
- Automatic Audio Chord Recognition With MIDI-Trained Deep Feature and BLSTM-CRF Sequence Decoding Model. *Wu, Y.*, +, *TASLP Feb. 2019 355-366*
- BFGAN: Backward and Forward Generative Adversarial Networks for Lexically Constrained Sentence Generation. *Liu, D.*, +, *TASLP Dec. 2019 2350-2361*
- Combining Spectral and Spatial Features for Deep Learning Based Blind Speaker Separation. *Wang, Z.*, +, *TASLP Feb. 2019 457-468*
- Complex-Valued Restricted Boltzmann Machine for Speaker-Dependent Speech Parameterization From Complex Spectra. *Nakashika, T.*, +, *TASLP Feb. 2019 244-254*

- Constrained Learned Feature Extraction for Acoustic Scene Classification. *Zhang, T.*, +, *TASLP Aug. 2019 1216-1228*
- Conv-TasNet: Surpassing Ideal Time-Frequency Magnitude Masking for Speech Separation. *Luo, Y.*, +, *TASLP Aug. 2019 1256-1266*
- CountNet: Estimating the Number of Concurrent Speakers Using Supervised Learning. *Stoter, F.*, +, *TASLP Feb. 2019 268-282*
- Curriculum Learning for Speech Emotion Recognition From Crowdsourced Labels. *Lotfian, R.*, +, *TASLP April 2019 815-826*
- Deep Learning for Database Mapping and Asking Clarification Questions in Dialogue Systems. *Korpusik, M.*, +, *TASLP Aug. 2019 1321-1334*
- Deep Learning for Talker-Dependent Reverberant Speaker Separation: An Empirical Study. *Delfarah, M.*, +, *TASLP Nov. 2019 1839-1848*
- Dirichlet Latent Variable Model: A Dynamic Model Based on Dirichlet Prior for Audio Processing. *Kumar, A.*, +, *TASLP May 2019 919-931*
- Discriminative Neural Embedding Learning for Short-Duration Text-Independent Speaker Verification. *Wang, S.*, +, *TASLP Nov. 2019 1686-1696*
- Divide and Conquer: A Deep CASA Approach to Talker-Independent Monaural Speaker Separation. *Liu, Y.*, +, *TASLP Dec. 2019 2092-2102*
- Emotion-Semantic-Enhanced Neural Network. *Yang, G.*, +, *TASLP March 2019 531-543*
- Emotional Voice Conversion Using Dual Supervised Adversarial Networks With Continuous Wavelet Transform F0 Features. *Luo, Z.*, +, *TASLP Oct. 2019 1535-1548*
- Exploiting Cross-Lingual Speaker and Phonetic Diversity for Unsupervised Subword Modeling. *Feng, S.*, +, *TASLP Dec. 2019 2000-2011*
- Forward-Backward Decoding Sequence for Regularizing End-to-End TTS. *Zheng, Y.*, +, *TASLP Dec. 2019 2067-2079*
- Future-Aware Knowledge Distillation for Neural Machine Translation. *Zhang, B.*, +, *TASLP Dec. 2019 2278-2287*
- Gated Residual Networks With Dilated Convolutions for Monaural Speech Enhancement. *Tan, K.*, +, *TASLP Jan. 2019 189-198*
- General Sequence Teacher-Student Learning. *Wong, J.H.M.*, +, *TASLP Nov. 2019 1725-1736*
- Global Inference for Aspect and Opinion Terms Co-Extraction Based on Multi-Task Neural Networks. *Yu, J.*, +, *TASLP Jan. 2019 168-177*
- Global-Local Mutual Attention Model for Text Classification. *Ma, Q.*, +, *TASLP Dec. 2019 2127-2139*
- Improving Aspect Term Extraction With Bidirectional Dependency Tree Representation. *Luo, H.*, +, *TASLP July 2019 1201-1212*
- Joint Estimation of Reverberation Time and Early-To-Late Reverberation Ratio From Single-Channel Speech Signals. *Xiong, F.*, +, *TASLP Feb. 2019 255-267*
- Language-Adversarial Transfer Learning for Low-Resource Speech Recognition. *Yi, J.*, +, *TASLP March 2019 621-630*
- Latent Attribute Based Hierarchical Decoder for Neural Machine Translation. *Liu, X.*, +, *TASLP Dec. 2019 2103-2112*
- Latent Question Interpretation Through Variational Adaptation. *Parshakova, T.*, +, *TASLP Nov. 2019 1713-1724*
- Listening and Grouping: An Online Autoregressive Approach for Monaural Speech Separation. *Li, Z.*, +, *TASLP April 2019 692-703*
- Low-Rank and Locality Constrained Self-Attention for Sequence Modeling. *Guo, Q.*, +, *TASLP Dec. 2019 2213-2222*
- Mixed-Bandwidth Cross-Channel Speech Recognition via Joint Optimization of DNN-Based Bandwidth Expansion and Acoustic Modeling. *Gao, J.*, +, *TASLP March 2019 559-571*
- Near-Field Acoustic Source Localization Using Spherical Harmonic Features. *Varanasi, V.*, +, *TASLP Dec. 2019 2054-2066*
- Neurally Controlled Graphic Equalizer. *Valimaki, V.*, +, *TASLP Dec. 2019 2140-2149*
- Phase-Aware Speech Enhancement Based on Deep Neural Networks. *Zheng, N.*, +, *TASLP Jan. 2019 63-76*
- Real-Word Errors in Arabic Texts: A Better Algorithm for Detection and Correction. *Azmi, A.M.*, +, *TASLP Aug. 2019 1308-1320*
- Relation Classification via Keyword-Attentive Sentence Mechanism and Synthetic Stimulation Loss. *Li, L.*, +, *TASLP Sept. 2019 1392-1404*
- Robust Speaker Localization Guided by Deep Learning-Based Time-Frequency Masking. *Wang, Z.*, +, *TASLP Jan. 2019 178-188*

- Semantic Speech Retrieval With a Visually Grounded Model of Untranscribed Speech. *Kamper, H.*, +, *TASLP Jan. 2019 89-98*
- Sequence Labeling With Deep Gated Dual Path CNN. *Zhao, L.*, +, *TASLP Dec. 2019 2326-2335*
- Siamese Style Convolutional Neural Networks for Sound Search by Vocal Imitation. *Zhang, Y.*, +, *TASLP Feb. 2019 429-441*
- Sound Event Detection and Time-Frequency Segmentation from Weakly Labelled Data. *Kong, Q.*, +, *TASLP April 2019 777-787*
- Sound Event Detection in the DCASE 2017 Challenge. *Mesaros, A.*, +, *TASLP June 2019 992-1006*
- Sparse Self-Attention LSTM for Sentiment Lexicon Construction. *Deng, D.*, +, *TASLP Nov. 2019 1777-1790*
- Speech Enhancement Based on Teacher-Student Deep Learning Using Improved Speech Presence Probability for Noise-Robust Speech Recognition. *Tu, Y.*, +, *TASLP Dec. 2019 2080-2091*
- Statistical Parametric Speech Synthesis Using Deep Gaussian Processes. *Koriyama, T.*, +, *TASLP May 2019 948-959*
- Switching Divergences for Spectral Learning in Blind Speech Dereverberation. *Ibarrola, F.J.*, +, *TASLP May 2019 881-891*
- Synthesizing 3D Trump: Predicting and Visualizing the Relationship Between Text, Speech, and Articulatory Movements. *Yu, J.*, +, *TASLP Dec. 2019 2223-2233*
- Tailoring an Interpretable Neural Language Model. *Zhang, Y.*, +, *TASLP July 2019 1164-1178*
- TEND: A Target-Dependent Representation Learning Framework for News Document. *Duan, J.*, +, *TASLP Dec. 2019 2313-2325*
- Time-Contrastive Learning Based Deep Bottleneck Features for Text-Dependent Speaker Verification. *Sarkar, A.K.*, +, *TASLP Aug. 2019 1267-1279*
- Toward Fail-Safe Speaker Recognition: Trial-Based Calibration With a Reject Option. *Ferrer, L.*, +, *TASLP Jan. 2019 140-153*
- Two-Stage Deep Learning for Noisy-Reverberant Speech Enhancement. *Zhao, Y.*, +, *TASLP Jan. 2019 53-62*
- Unsupervised Detection of Anomalous Sound Based on Deep Learning and the Neyman-Pearson Lemma. *Koizumi, Y.*, +, *TASLP Jan. 2019 212-224*
- Unsupervised Speech Representation Learning Using WaveNet Autoencoders. *Chorowski, J.*, +, *TASLP Dec. 2019 2041-2053*
- Using Generalized Gaussian Distributions to Improve Regression Error Modeling for Deep Learning-Based Speech Enhancement. *Chai, L.*, +, *TASLP Dec. 2019 1919-1931*
- Weakly Labelled AudioSet Tagging With Attention Neural Networks. *Kong, Q.*, +, *TASLP Nov. 2019 1791-1802*
- Least mean squares methods**
- On the Relationship Between Short-Time Objective Intelligibility and Short-Time Spectral-Amplitude Mean-Square Error for Speech Enhancement. *Kolbaek, M.*, +, *TASLP Feb. 2019 283-295*
- Recursive Least-Squares Algorithms for the Identification of Low-Rank Systems. *Elisei-Iliescu, C.*, +, *TASLP May 2019 903-918*
- Using Generalized Gaussian Distributions to Improve Regression Error Modeling for Deep Learning-Based Speech Enhancement. *Chai, L.*, +, *TASLP Dec. 2019 1919-1931*
- Least squares approximations**
- Estimation of Fundamental Frequencies in Stereophonic Music Mixtures. *Hansen, M.W.*, +, *TASLP Feb. 2019 296-310*
- Iterative DFT-Domain Inverse Filter Optimization Using a Weighted Least-Squares Criterion. *Schneider, M.*, +, *TASLP Dec. 2019 1957-1969*
- Multichannel Online Dereverberation Based on Spectral Magnitude Inverse Filtering. *Li, X.*, +, *TASLP Sept. 2019 1365-1377*
- Null-Steering Beamformer-Based Feedback Cancellation for Multi-Microphone Hearing Aids With Incoming Signal Preservation. *Schepker, H.*, +, *TASLP April 2019 679-691*
- Recursive Least-Squares Algorithms for the Identification of Low-Rank Systems. *Elisei-Iliescu, C.*, +, *TASLP May 2019 903-918*
- Limiters**
- Newton-Raphson Solution of Nonlinear Delay-Free Loop Filter Networks. *Fontana, F.*, +, *TASLP Oct. 2019 1590-1600*
- Linear codes**
- Conv-TasNet: Surpassing Ideal Time-Frequency Magnitude Masking for Speech Separation. *Luo, Y.*, +, *TASLP Aug. 2019 1256-1266*
- Linear discriminant analysis**
- Privacy-Preserving iVector-Based Speaker Verification. *Rahulamathavan, Y.*, +, *TASLP March 2019 496-506*
- Linguistics**
- Adversarial Regularization for Attention Based End-to-End Robust Speech Recognition. *Sun, S.*, +, *TASLP Nov. 2019 1826-1838*
- Analysis of Inter-Pausal Units in Indian Languages and Its Application to Text-to-Speech Synthesis. *Prakash, J.J.*, +, *TASLP Oct. 2019 1616-1628*
- Phonology-Augmented Statistical Framework for Machine Transliteration Using Limited Linguistic Resources. *Ngo, G.H.*, +, *TASLP Jan. 2019 199-211*
- Loudspeakers**
- A Geometric Model for Prediction of Spatial Aliasing in 2.5D Sound Field Synthesis. *Winter, F.*, +, *TASLP June 2019 1031-1046*
- Low-Complexity Multi-Microphone Acoustic Echo Control in the Short-Time Fourier Transform Domain. *Luis Valero, M.*, +, *TASLP March 2019 595-609*
- Null-Steering Beamformer-Based Feedback Cancellation for Multi-Microphone Hearing Aids With Incoming Signal Preservation. *Schepker, H.*, +, *TASLP April 2019 679-691*
- On the Influence of Continuous Subject Rotation During High-Resolution Head-Related Transfer Function Measurements. *Richter, J.*, +, *TASLP April 2019 730-741*
- On the Influence of Transfer Function Noise on Sound Zone Control in a Room. *Moller, M.B.*, +, *TASLP Sept. 2019 1405-1418*
- Robust Personal Audio Geometry Optimization in the SVD-Based Modal Domain. *Zhu, Q.*, +, *TASLP March 2019 610-620*
- State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance. *Park, J.*, +, *TASLP Oct. 2019 1520-1534*
- Three-Dimensional Sound Field Reproduction Based on Weighted Mode-Matching Method. *Ueno, N.*, +, *TASLP Dec. 2019 1852-1867*
- M**
- Markov processes**
- Robust Bayesian Pitch Tracking Based on the Harmonic Model. *Shi, L.*, +, *TASLP Nov. 2019 1737-1751*
- Matrix algebra**
- Decentralized Two-Channel Active Noise Control for Single Frequency by Shaping Matrix Eigenvalues. *Zhang, G.*, +, *TASLP Jan. 2019 44-52*
- DOA-Based Three-Dimensional Node Geometry Calibration in Acoustic Sensor Networks and Its Cramér-Rao Bound and Sensitivity Analysis. *Wang, R.*, +, *TASLP Sept. 2019 1455-1468*
- Emotion-Semantic-Enhanced Neural Network. *Yang, G.*, +, *TASLP March 2019 531-543*
- Group Sparse Representation With WaveNet Vocoder Adaptation for Spectrum and Prosody Conversion. *Sisman, B.*, +, *TASLP June 2019 1085-1097*
- Independent Deeply Learned Matrix Analysis for Determined Audio Source Separation. *Makishima, N.*, +, *TASLP Oct. 2019 1601-1615*
- Methods of Extending a Generalized Sidelobe Canceller With External Microphones. *Ali, R.*, +, *TASLP Sept. 2019 1349-1364*
- Multiple Sound Source Counting and Localization Based on TF-Wise Spatial Spectrum Clustering. *Yang, B.*, +, *TASLP Aug. 2019 1241-1255*
- Relative Acoustic Transfer Function Estimation in Wireless Acoustic Sensor Networks. *Zhang, J.*, +, *TASLP Oct. 2019 1507-1519*
- Semi-Supervised Multichannel Speech Enhancement With a Deep Speech Prior. *Sekiguchi, K.*, +, *TASLP Dec. 2019 2197-2212*
- Matrix decomposition**
- Complex ISNMF: A Phase-Aware Model for Monaural Audio Source Separation. *Magron, P.*, +, *TASLP Jan. 2019 20-31*
- Gaussian Modeling-Based Multichannel Audio Source Separation Exploiting Generic Source Spectral Model. *Duong, T.T.H.*, +, *TASLP Jan. 2019 32-43*
- Low-Rank and Locality Constrained Self-Attention for Sequence Modeling. *Guo, Q.*, +, *TASLP Dec. 2019 2213-2222*
- Semi-Supervised Multichannel Speech Enhancement With a Deep Speech Prior. *Sekiguchi, K.*, +, *TASLP Dec. 2019 2197-2212*

**Maximum likelihood estimation**

- Bird Species Recognition Using Unsupervised Modeling of Individual Vocalization Elements. *Jancovic, P.*, +, *TASLP May 2019 932-947*
- Model-Based Speech Enhancement for Intelligibility Improvement in Binaural Hearing Aids. *Kavalekalam, M.S.*, +, *TASLP Jan. 2019 99-113*
- Semi-Supervised Multichannel Speech Enhancement With a Deep Speech Prior. *Sekiguchi, K.*, +, *TASLP Dec. 2019 2197-2212*
- Using Generalized Gaussian Distributions to Improve Regression Error Modeling for Deep Learning-Based Speech Enhancement. *Chai, L.*, +, *TASLP Dec. 2019 1919-1931*

**Mean square error methods**

- Asymmetric Coding for Rate-Constrained Noise Reduction in Binaural Hearing Aids. *Amini, J.*, +, *TASLP Jan. 2019 154-167*
- Efficient Representation and Sparse Sampling of Head-Related Transfer Functions Using Phase-Correction Based on Ear Alignment. *Ben-Hur, Z.*, +, *TASLP Dec. 2019 2249-2262*
- Using Generalized Gaussian Distributions to Improve Regression Error Modeling for Deep Learning-Based Speech Enhancement. *Chai, L.*, +, *TASLP Dec. 2019 1919-1931*

**Medical signal processing**

- Asymmetric Coding for Rate-Constrained Noise Reduction in Binaural Hearing Aids. *Amini, J.*, +, *TASLP Jan. 2019 154-167*
- Automatic Identification of Hard and Soft Bone Tissues by Analyzing Drilling Sounds. *Zakeri, V.*, +, *TASLP Feb. 2019 404-414*

**Microphone arrays**

- Differential Kronecker Product Beamforming. *Cohen, I.*, +, *TASLP May 2019 892-902*
- Incoherent Synthesis of Sparse Arrays for Frequency-Invariant Beamforming. *Buchris, Y.*, +, *TASLP March 2019 482-495*
- Indoor Multiple Sound Source Localization via Multi-Dimensional Assignment Data Association. *Dang, X.*, +, *TASLP Dec. 2019 1944-1956*
- Methods of Extending a Generalized Sidelobe Canceller With External Microphones. *Ali, R.*, +, *TASLP Sept. 2019 1349-1364*
- Multiple Sound Source Counting and Localization Based on TF-Wise Spatial Spectrum Clustering. *Yang, B.*, +, *TASLP Aug. 2019 1241-1255*
- Noise Covariance Matrix Estimation for Rotating Microphone Arrays. *Moore, A.H.*, +, *TASLP March 2019 519-530*
- On Mainlobe Orientation of the First- and Second-Order Differential Microphone Arrays. *Tu, Q.*, +, *TASLP July 2019 2025-2040*
- On Robust and High Directive Beamforming With Small-Spacing Microphone Arrays for Scattered Sources. *Wang, X.*, +, *TASLP April 2019 842-852*
- On the Design of Target Beampatterns for Differential Microphone Arrays. *Pan, C.*, +, *TASLP Aug. 2019 1295-1307*
- Robust Joint Estimation of Multimicrophone Signal Model Parameters. *Koutrouvelis, A.I.*, +, *TASLP July 2019 1136-1150*
- State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance. *Park, J.*, +, *TASLP Oct. 2019 1520-1534*
- Uniform Linear Arrays of First-Order Steerable Differential Microphones. *Borra, F.*, +, *TASLP Dec. 2019 1906-1918*

**Microphones**

- A Joint Learning Algorithm for Complex-Valued T-F Masks in Deep Learning-Based Single-Channel Speech Enhancement Systems. *Lee, J.*, +, *TASLP June 2019 1098-1108*
- A Low Latency Approach for Blind Source Separation. *Chua, J.*, +, *TASLP Aug. 2019 1280-1294*
- Asymmetric Coding for Rate-Constrained Noise Reduction in Binaural Hearing Aids. *Amini, J.*, +, *TASLP Jan. 2019 154-167*
- Combining Spectral and Spatial Features for Deep Learning Based Blind Speaker Separation. *Wang, Z.*, +, *TASLP Feb. 2019 457-468*
- Comparative Analysis of Generalized Sidelobe Cancellation and Multi-Channel Linear Prediction for Speech Dereverberation and Noise Reduction. *Dietzen, T.*, +, *TASLP March 2019 544-558*
- Decentralized Two-Channel Active Noise Control for Single Frequency by Shaping Matrix Eigenvalues. *Zhang, G.*, +, *TASLP Jan. 2019 44-52*

- DOA-Based Three-Dimensional Node Geometry Calibration in Acoustic Sensor Networks and Its Cramér–Rao Bound and Sensitivity Analysis. *Wang, R.*, +, *TASLP Sept. 2019 1455-1468*
- Eigenvector-Based Speech Mask Estimation for Multi-Channel Speech Enhancement. *Pfeifenberger, L.*, +, *TASLP Dec. 2019 2162-2172*
- Fast Algorithms for Acoustic Impulse Response Shaping. *Krishnan, L.*, +, *TASLP Feb. 2019 392-403*
- Joint Acoustic Localization and Dereverberation Through Plane Wave Decomposition and Sparse Regularization. *Antonello, N.*, +, *TASLP Dec. 2019 1893-1905*
- Low-Complexity Multi-Microphone Acoustic Echo Control in the Short-Time Fourier Transform Domain. *Luis Valero, M.*, +, *TASLP March 2019 595-609*
- Multichannel Online Dereverberation Based on Spectral Magnitude Inverse Filtering. *Li, X.*, +, *TASLP Sept. 2019 1365-1377*
- Multichannel Speech Separation and Enhancement Using the Convolutional Transfer Function. *Li, X.*, +, *TASLP March 2019 645-659*
- Noise Covariance Matrix Estimation for Rotating Microphone Arrays. *Moore, A.H.*, +, *TASLP March 2019 519-530*
- Null-Steering Beamformer-Based Feedback Cancellation for Multi-Microphone Hearing Aids With Incoming Signal Preservation. *Schepker, H.*, +, *TASLP April 2019 679-691*
- On the Influence of Transfer Function Noise on Sound Zone Control in a Room. *Moller, M.B.*, +, *TASLP Sept. 2019 1405-1418*
- Perceptually Relevant Preservation of Interaural Time Differences in Binaural Hearing Aids. *Iturriet, F.P.*, +, *TASLP April 2019 753-764*
- Robust Speaker Localization Guided by Deep Learning-Based Time-Frequency Masking. *Wang, Z.*, +, *TASLP Jan. 2019 178-188*

**MIMO communication**

- Late Reverberation Cancellation Using Bayesian Estimation of Multi-Channel Linear Predictors and Student's t-Source Prior. *Chetupalli, S.R.*, +, *TASLP June 2019 1007-1018*

**Minimax techniques**

- Null-Steering Beamformer-Based Feedback Cancellation for Multi-Microphone Hearing Aids With Incoming Signal Preservation. *Schepker, H.*, +, *TASLP April 2019 679-691*

**Minimization**

- Adversarial Approximate Inference for Speech to Electroglottograph Conversion. *A. P., P.*, +, *TASLP Dec. 2019 2183-2196*
- DOA-Based Three-Dimensional Node Geometry Calibration in Acoustic Sensor Networks and Its Cramér–Rao Bound and Sensitivity Analysis. *Wang, R.*, +, *TASLP Sept. 2019 1455-1468*
- Multichannel Speech Separation and Enhancement Using the Convolutional Transfer Function. *Li, X.*, +, *TASLP March 2019 645-659*
- Relative Acoustic Transfer Function Estimation in Wireless Acoustic Sensor Networks. *Zhang, J.*, +, *TASLP Oct. 2019 1507-1519*

**MISO communication**

- Late Reverberation Cancellation Using Bayesian Estimation of Multi-Channel Linear Predictors and Student's t-Source Prior. *Chetupalli, S.R.*, +, *TASLP June 2019 1007-1018*

**Mixture models**

- Many-to-Many and Completely Parallel-Data-Free Voice Conversion Based on Eigenspace DNN. *Hashimoto, T.*, +, *TASLP Feb. 2019 332-341*

**Modulation**

- Modulation-Domain Kalman Filtering for Monaural Blind Speech Denoising and Dereverberation. *Dionelis, N.*, +, *TASLP April 2019 799-814*
- Non-Intrusive Speech Quality Prediction Using Modulation Energies and LSTM-Network. *Cauchi, B.*, +, *TASLP July 2019 1151-1163*

**Monte Carlo methods**

- Improving Conditional Sequence Generative Adversarial Networks by Step-wise Evaluation. *Tuan, Y.*, +, *TASLP April 2019 788-798*

**Multi-agent systems**

- AgentGraph: Toward Universal Dialogue Management With Structured Deep Reinforcement Learning. *Chen, L.*, +, *TASLP Sept. 2019 1378-1391*

**Music**

- Automatic Audio Chord Recognition With MIDI-Trained Deep Feature and BLSTM-CRF Sequence Decoding Model. *Wu, Y.*, +, *TASLP Feb. 2019 355-366*

Enhanced Feature Summarizing for Effective Cover Song Identification. *Hu, J.*, +, *TASLP Dec. 2019 2113-2126*

Estimation of Fundamental Frequencies in Stereophonic Music Mixtures. *Hansen, M.W.*, +, *TASLP Feb. 2019 296-310*

Linear Multistep Discretization Methods With Variable Step-Size in Nonlinear Wave Digital Structures for Virtual Analog Modeling. *Bernardini, A.*, +, *TASLP Nov. 2019 1763-1776*

#### Musical acoustics

A Multi-Stage Algorithm for Acoustic Physical Model Parameters Estimation. *Gabrielli, L.*, +, *TASLP Aug. 2019 1229-1240*

#### Musical instruments

A Multi-Stage Algorithm for Acoustic Physical Model Parameters Estimation. *Gabrielli, L.*, +, *TASLP Aug. 2019 1229-1240*

## N

#### Natural language interfaces

Deep Learning for Database Mapping and Asking Clarification Questions in Dialogue Systems. *Korpusik, M.*, +, *TASLP Aug. 2019 1321-1334*

#### Natural language processing

A Bilingual Adversarial Autoencoder for Unsupervised Bilingual Lexicon Induction. *Bai, X.*, +, *TASLP Oct. 2019 1639-1648*

Adversarial Regularization for Attention Based End-to-End Robust Speech Recognition. *Sun, S.*, +, *TASLP Nov. 2019 1826-1838*

An Efficient Framework for Sentence Similarity Modeling. *Quan, Z.*, +, *TASLP April 2019 853-865*

Analysis of Inter-Pausal Units in Indian Languages and Its Application to Text-to-Speech Synthesis. *Prakash, J.J.*, +, *TASLP Oct. 2019 1616-1628*

Audio Word2vec: Sequence-to-Sequence Autoencoding for Unsupervised Learning of Audio Segmentation and Representation. *Chen, Y.*, +, *TASLP Sept. 2019 1481-1493*

Beyond Error Propagation: Language Branching Also Affects the Accuracy of Sequence Generation. *Wu, L.*, +, *TASLP Dec. 2019 1868-1879*

BFGAN: Backward and Forward Generative Adversarial Networks for Lexically Constrained Sentence Generation. *Liu, D.*, +, *TASLP Dec. 2019 2350-2361*

Deep Learning for Database Mapping and Asking Clarification Questions in Dialogue Systems. *Korpusik, M.*, +, *TASLP Aug. 2019 1321-1334*

Effective Subword Segmentation for Text Comprehension. *Zhang, Z.*, +, *TASLP Nov. 2019 1664-1674*

Exploiting Future Word Contexts in Neural Network Language Models for Speech Recognition. *Chen, X.*, +, *TASLP Sept. 2019 1444-1454*

Future-Aware Knowledge Distillation for Neural Machine Translation. *Zhang, B.*, +, *TASLP Dec. 2019 2278-2287*

Global-Local Mutual Attention Model for Text Classification. *Ma, Q.*, +, *TASLP Dec. 2019 2127-2139*

Group Sparse Representation With WaveNet Vocoder Adaptation for Spectrum and Prosody Conversion. *Sisman, B.*, +, *TASLP June 2019 1085-1097*

Improving Aspect Term Extraction With Bidirectional Dependency Tree Representation. *Luo, H.*, +, *TASLP July 2019 1201-1212*

Improving Mispronunciation Detection of Mandarin Tones for Non-Native Learners With Soft-Target Tone Labels and BLSTM-Based Deep Tone Models. *Li, W.*, +, *TASLP Dec. 2019 2012-2024*

Latent Attribute Based Hierarchical Decoder for Neural Machine Translation. *Liu, X.*, +, *TASLP Dec. 2019 2103-2112*

Latent Question Interpretation Through Variational Adaptation. *Parshakova, T.*, +, *TASLP Nov. 2019 1713-1724*

Low Resource Keyword Search With Synthesized Crosslingual Exemplars. *Yusuf, B.*, +, *TASLP July 2019 1126-1135*

Low-Rank and Locality Constrained Self-Attention for Sequence Modeling. *Guo, Q.*, +, *TASLP Dec. 2019 2213-2222*

Machine Comprehension of Spoken Content: TOEFL Listening Test and Spoken SQuAD. *Lee, C.*, +, *TASLP Sept. 2019 1469-1480*

Neural Machine Translation With Sentence-Level Topic Context. *Chen, K.*, +, *TASLP Dec. 2019 1970-1984*

Phonology-Augmented Statistical Framework for Machine Transliteration Using Limited Linguistic Resources. *Ngo, G.H.*, +, *TASLP Jan. 2019 199-211*

Positive Emotion Elicitation in Chat-Based Dialogue Systems. *Lubis, N.*, +, *TASLP April 2019 866-877*

Real-Word Errors in Arabic Texts: A Better Algorithm for Detection and Correction. *Azmi, A.M.*, +, *TASLP Aug. 2019 1308-1320*

Relation Classification via Keyword-Attentive Sentence Mechanism and Synthetic Stimulation Loss. *Li, L.*, +, *TASLP Sept. 2019 1392-1404*

Semantic Speech Retrieval With a Visually Grounded Model of Untranscribed Speech. *Kamper, H.*, +, *TASLP Jan. 2019 89-98*

Semi-Supervised Neural Machine Translation via Marginal Distribution Estimation. *Wang, Y.*, +, *TASLP Oct. 2019 1564-1576*

Sequence Labeling With Deep Gated Dual Path CNN. *Zhao, L.*, +, *TASLP Dec. 2019 2326-2335*

Sparse Self-Attention LSTM for Sentiment Lexicon Construction. *Deng, D.*, +, *TASLP Nov. 2019 1777-1790*

STD: An Automatic Evaluation Metric for Machine Translation Based on Word Embeddings. *Li, P.*, +, *TASLP Oct. 2019 1497-1506*

Story Ending Selection by Finding Hints From Pairwise Candidate Endings. *Zhou, M.*, +, *TASLP April 2019 719-729*

Synthesizing 3D Trump: Predicting and Visualizing the Relationship Between Text, Speech, and Articulatory Movements. *Yu, J.*, +, *TASLP Dec. 2019 2223-2233*

Text Generation From Tables. *Bao, J.*, +, *TASLP Feb. 2019 311-320*

#### Neural networks

A Context Encoder For Audio Inpainting. *Marafioti, A.*, +, *TASLP Dec. 2019 2362-2372*

A New Ratio Mask Representation for CASA-Based Speech Enhancement. *Bao, F.*, +, *TASLP Jan. 2019 7-19*

A Theory on Deep Neural Network Based Vector-to-Vector Regression With an Illustration of Its Expressive Power in Speech Enhancement. *Qi, J.*, +, *TASLP Dec. 2019 1932-1943*

Acoustical Assessment of Voice Disorder With Continuous Speech Using ASR Posterior Features. *Liu, Y.*, +, *TASLP June 2019 1047-1059*

Adversarial Approximate Inference for Speech to Electrolaryngograph Conversion. *A. P., P.*, +, *TASLP Dec. 2019 2183-2196*

AgentGraph: Toward Universal Dialogue Management With Structured Deep Reinforcement Learning. *Chen, L.*, +, *TASLP Sept. 2019 1378-1391*

Attention With Sparsity Regularization for Neural Machine Translation and Summarization. *Zhang, J.*, +, *TASLP March 2019 507-518*

Bird Species Recognition Using Unsupervised Modeling of Individual Vocalization Elements. *Jancovic, P.*, +, *TASLP May 2019 932-947*

Constrained Learned Feature Extraction for Acoustic Scene Classification. *Zhang, T.*, +, *TASLP Aug. 2019 1216-1228*

Curriculum Learning for Speech Emotion Recognition From Crowdsourced Labels. *Lotfian, R.*, +, *TASLP April 2019 815-826*

Discriminative Neural Embedding Learning for Short-Duration Text-Independent Speaker Verification. *Wang, S.*, +, *TASLP Nov. 2019 1686-1696*

Divide and Conquer: A Deep CASA Approach to Talker-Independent Monaural Speaker Separation. *Liu, Y.*, +, *TASLP Dec. 2019 2092-2102*

DNN-Based Cepstral Excitation Manipulation for Speech Enhancement. *Elshamy, S.*, +, *TASLP Nov. 2019 1803-1814*

Evolution-Strategy-Based Automation of System Development for High-Performance Speech Recognition. *Moriya, T.*, +, *TASLP Jan. 2019 77-88*

Exploiting Cross-Lingual Speaker and Phonetic Diversity for Unsupervised Subword Modeling. *Feng, S.*, +, *TASLP Dec. 2019 2000-2011*

Global Inference for Aspect and Opinion Terms Co-Extraction Based on Multi-Task Neural Networks. *Yu, J.*, +, *TASLP Jan. 2019 168-177*

Improving Conditional Sequence Generative Adversarial Networks by Step-wise Evaluation. *Tuan, Y.*, +, *TASLP April 2019 788-798*

Improving Mispronunciation Detection of Mandarin Tones for Non-Native Learners With Soft-Target Tone Labels and BLSTM-Based Deep Tone Models. *Li, W.*, +, *TASLP Dec. 2019 2012-2024*

Independent Deeply Learned Matrix Analysis for Determined Audio Source Separation. *Makishima, N.*, +, *TASLP Oct. 2019 1601-1615*

Joint Estimation of Reverberation Time and Early-To-Late Reverberation Ratio From Single-Channel Speech Signals. *Xiong, F.*, +, *TASLP Feb. 2019 255-267*

- Knowledge Base Question Answering With a Matching-Aggregation Model and Question-Specific Contextual Relations. *Lan, Y., +, TASLP Oct. 2019 1629-1638*
- Latent Question Interpretation Through Variational Adaptation. *Parshakova, T., +, TASLP Nov. 2019 1713-1724*
- Machine Comprehension of Spoken Content: TOEFL Listening Test and Spoken SQUAD. *Lee, C., +, TASLP Sept. 2019 1469-1480*
- Many-to-Many and Completely Parallel-Data-Free Voice Conversion Based on Eigenspace DNN. *Hashimoto, T., +, TASLP Feb. 2019 332-341*
- Mixed-Bandwidth Cross-Channel Speech Recognition via Joint Optimization of DNN-Based Bandwidth Expansion and Acoustic Modeling. *Gao, J., +, TASLP March 2019 559-571*
- On the Relationship Between Short-Time Objective Intelligibility and Short-Time Spectral-Amplitude Mean-Square Error for Speech Enhancement. *Kolbaek, M., +, TASLP Feb. 2019 283-295*
- Phase-Aware Speech Enhancement Based on Deep Neural Networks. *Zheng, N., +, TASLP Jan. 2019 63-76*
- Positive Emotion Elicitation in Chat-Based Dialogue Systems. *Lubis, N., +, TASLP April 2019 866-877*
- Robust Speaker Localization Guided by Deep Learning-Based Time-Frequency Masking. *Wang, Z., +, TASLP Jan. 2019 178-188*
- Semantic Speech Retrieval With a Visually Grounded Model of Untranscribed Speech. *Kamper, H., +, TASLP Jan. 2019 89-98*
- Semi-Supervised Multichannel Speech Enhancement With a Deep Speech Prior. *Sekiguchi, K., +, TASLP Dec. 2019 2197-2212*
- Semi-Supervised Neural Machine Translation via Marginal Distribution Estimation. *Wang, Y., +, TASLP Oct. 2019 1564-1576*
- Sequence-to-Sequence Acoustic Modeling for Voice Conversion. *Zhang, J., +, TASLP March 2019 631-644*
- Sound Event Detection and Time-Frequency Segmentation from Weakly Labelled Data. *Kong, Q., +, TASLP April 2019 777-787*
- Sound Event Detection in the DCASE 2017 Challenge. *Mesaros, A., +, TASLP June 2019 992-1006*
- Sound Localization Based on Phase Difference Enhancement Using Deep Neural Networks. *Pak, J., +, TASLP Aug. 2019 1335-1345*
- Sparse Self-Attention LSTM for Sentiment Lexicon Construction. *Deng, D., +, TASLP Nov. 2019 1777-1790*
- Speech Enhancement Based on Teacher-Student Deep Learning Using Improved Speech Presence Probability for Noise-Robust Speech Recognition. *Tu, Y., +, TASLP Dec. 2019 2080-2091*
- Statistical Parametric Speech Synthesis Using Deep Gaussian Processes. *Koriyama, T., +, TASLP May 2019 948-959*
- Story Ending Selection by Finding Hints From Pairwise Candidate Endings. *Zhou, M., +, TASLP April 2019 719-729*
- Subjective Evaluation of a Noise-Reduced Training Target for Deep Neural Network-Based Speech Enhancement. *Gelderblom, F.B., +, TASLP March 2019 583-594*
- Synthesizing 3D Trump: Predicting and Visualizing the Relationship Between Text, Speech, and Articulatory Movements. *Yu, J., +, TASLP Dec. 2019 2223-2233*
- TEND: A Target-Dependent Representation Learning Framework for News Document. *Duan, J., +, TASLP Dec. 2019 2313-2325*
- Text Generation From Tables. *Bao, J., +, TASLP Feb. 2019 311-320*
- Time-Contrastive Learning Based Deep Bottleneck Features for Text-Dependent Speaker Verification. *Sarkar, A.K., +, TASLP Aug. 2019 1267-1279*
- Two-Stage Deep Learning for Noisy-Reverberant Speech Enhancement. *Zhao, Y., +, TASLP Jan. 2019 53-62*
- Two-Stage Monaural Source Separation in Reverberant Room Environments Using Deep Neural Networks. *Sun, Y., +, TASLP Jan. 2019 125-139*
- Unsupervised Speech Enhancement Based on Multichannel NMF-Informed Beamforming for Noise-Robust Automatic Speech Recognition. *Shimada, K., +, TASLP May 2019 960-971*
- Unsupervised Speech Representation Learning Using WaveNet Autoencoders. *Chorowski, J., +, TASLP Dec. 2019 2041-2053*
- Using Generalized Gaussian Distributions to Improve Regression Error Modeling for Deep Learning-Based Speech Enhancement. *Chai, L., +, TASLP Dec. 2019 1919-1931*
- Weakly Labelled AudioSet Tagging With Attention Neural Networks. *Kong, Q., +, TASLP Nov. 2019 1791-1802*
- Neurocontrollers**
- Neurally Controlled Graphic Equalizer. *Valimaki, V., +, TASLP Dec. 2019 2140-2149*
- Newton method**
- Newton-Raphson Solution of Nonlinear Delay-Free Loop Filter Networks. *Fontana, F., +, TASLP Oct. 2019 1590-1600*
- Newton-Raphson method**
- Newton-Raphson Solution of Nonlinear Delay-Free Loop Filter Networks. *Fontana, F., +, TASLP Oct. 2019 1590-1600*
- Noise**
- Speech Enhancement Based on Teacher-Student Deep Learning Using Improved Speech Presence Probability for Noise-Robust Speech Recognition. *Tu, Y., +, TASLP Dec. 2019 2080-2091*
- Using Generalized Gaussian Distributions to Improve Regression Error Modeling for Deep Learning-Based Speech Enhancement. *Chai, L., +, TASLP Dec. 2019 1919-1931*
- Nonlinear acoustics**
- State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance. *Park, J., +, TASLP Oct. 2019 1520-1534*
- Nonlinear distortion**
- Equalization of Nonlinear Propagation Distortion in Cylindrical Waveguides. *Payal, S.S., +, TASLP June 2019 1072-1084*
- Nonlinear systems**
- Erratum for "Nonlinear Audio Systems Identification Through Audio Input Gaussianization" [Jan 14 41-53]. *TASLP Jan. 2019 240*
- Numerical analysis**
- Relative Acoustic Transfer Function Estimation in Wireless Acoustic Sensor Networks. *Zhang, J., +, TASLP Oct. 2019 1507-1519*
- Three-Dimensional Sound Field Reproduction Based on Weighted Mode-Matching Method. *Ueno, N., +, TASLP Dec. 2019 1852-1867*
- O**
- Ontologies (artificial intelligence)**
- AgentGraph: Toward Universal Dialogue Management With Structured Deep Reinforcement Learning. *Chen, L., +, TASLP Sept. 2019 1378-1391*
- Optical character recognition**
- Real-Word Errors in Arabic Texts: A Better Algorithm for Detection and Correction. *Azmi, A.M., +, TASLP Aug. 2019 1308-1320*
- Optimization**
- A Multi-Stage Algorithm for Acoustic Physical Model Parameters Estimation. *Gabrielli, L., +, TASLP Aug. 2019 1229-1240*
- Causal MSE-Optimal Filters for Personal Audio Subject to Constrained Contrast. *Widmark, S., TASLP May 2019 972-987*
- Divide and Conquer: A Deep CASA Approach to Talker-Independent Monaural Speaker Separation. *Liu, Y., +, TASLP Dec. 2019 2092-2102*
- Iterative DFT-Domain Inverse Filter Optimization Using a Weighted Least-Squares Criterion. *Schneider, M., +, TASLP Dec. 2019 1957-1969*
- Joint Acoustic Localization and Dereverberation Through Plane Wave Decomposition and Sparse Regularization. *Antonello, N., +, TASLP Dec. 2019 1893-1905*
- On the Design of Target Beampatterns for Differential Microphone Arrays. *Pan, C., +, TASLP Aug. 2019 1295-1307*
- Robust Personal Audio Geometry Optimization in the SVD-Based Modal Domain. *Zhu, Q., +, TASLP March 2019 610-620*
- Underdetermined Reverberant Blind Source Separation: Sparse Approaches for Multiplicative and Convolutional Narrowband Approximation. *Feng, F., +, TASLP Feb. 2019 442-456*
- Unsupervised Detection of Anomalous Sound Based on Deep Learning and the Neyman-Pearson Lemma. *Koizumi, Y., +, TASLP Jan. 2019 212-224*
- P**
- Parallel processing**
- Evolution-Strategy-Based Automation of System Development for High-Performance Speech Recognition. *Moriya, T., +, TASLP Jan. 2019 77-88*

Many-to-Many and Completely Parallel-Data-Free Voice Conversion Based on Eigenspace DNN. *Hashimoto, T.*, +, *TASLP Feb. 2019 332-341*

#### Parameter estimation

A Low Latency Approach for Blind Source Separation. *Chua, J.*, +, *TASLP Aug. 2019 1280-1294*

A Multi-Stage Algorithm for Acoustic Physical Model Parameters Estimation. *Gabrielli, L.*, +, *TASLP Aug. 2019 1229-1240*

Gaussian Modeling-Based Multichannel Audio Source Separation Exploiting Generic Source Spectral Model. *Duong, T.T.H.*, +, *TASLP Jan. 2019 32-43*

InverSynth: Deep Estimation of Synthesizer Parameter Configurations From Audio Signals. *Barkan, O.*, +, *TASLP Dec. 2019 2385-2396*

Joint Estimation of Reverberation Time and Early-To-Late Reverberation Ratio From Single-Channel Speech Signals. *Xiong, F.*, +, *TASLP Feb. 2019 255-267*

Robust Joint Estimation of Multimicrophone Signal Model Parameters. *Koutrouvelis, A.I.*, +, *TASLP July 2019 1136-1150*

#### Pareto optimization

Evolution-Strategy-Based Automation of System Development for High-Performance Speech Recognition. *Moriya, T.*, +, *TASLP Jan. 2019 77-88*

#### Pattern classification

Curriculum Learning for Speech Emotion Recognition From Crowdsourced Labels. *Lotfian, R.*, +, *TASLP April 2019 815-826*

Emotion-Semantic-Enhanced Neural Network. *Yang, G.*, +, *TASLP March 2019 531-543*

Global-Local Mutual Attention Model for Text Classification. *Ma, Q.*, +, *TASLP Dec. 2019 2127-2139*

Improving Mispronunciation Detection of Mandarin Tones for Non-Native Learners With Soft-Target Tone Labels and BLSTM-Based Deep Tone Models. *Li, W.*, +, *TASLP Dec. 2019 2012-2024*

Information Loss in the Human Auditory System. *Jahromi, M.Z.*, +, *TASLP March 2019 472-481*

Relation Classification via Keyword-Attentive Sentence Mechanism and Synthetic Stimulation Loss. *Li, L.*, +, *TASLP Sept. 2019 1392-1404*

Sentiment Lexicon Construction With Hierarchical Supervision Topic Model. *Deng, D.*, +, *TASLP April 2019 704-718*

Sparse Self-Attention LSTM for Sentiment Lexicon Construction. *Deng, D.*, +, *TASLP Nov. 2019 1777-1790*

#### Pattern clustering

Audio-Visual Deep Clustering for Speech Separation. *Lu, R.*, +, *TASLP Nov. 2019 1697-1712*

Divide and Conquer: A Deep CASA Approach to Talker-Independent Monaural Speaker Separation. *Liu, Y.*, +, *TASLP Dec. 2019 2092-2102*

Multiple Sound Source Counting and Localization Based on TF-Wise Spatial Spectrum Clustering. *Yang, B.*, +, *TASLP Aug. 2019 1241-1255*

Time-Contrastive Learning Based Deep Bottleneck Features for Text-Dependent Speaker Verification. *Sarkar, A.K.*, +, *TASLP Aug. 2019 1267-1279*

#### Physiology

Synthesizing 3D Trump: Predicting and Visualizing the Relationship Between Text, Speech, and Articulatory Movements. *Yu, J.*, +, *TASLP Dec. 2019 2223-2233*

#### Probability

A Bayesian Hierarchical Model for Speech Enhancement With Time-Varying Audio Channel. *Laufer, Y.*, +, *TASLP Jan. 2019 225-239*

Acoustical Assessment of Voice Disorder With Continuous Speech Using ASR Posterior Features. *Liu, Y.*, +, *TASLP June 2019 1047-1059*

Binaural Codebook-Based Speech Enhancement With Atomic Speech Presence Probability. *Wood, S.U.N.*, +, *TASLP Dec. 2019 2150-2161*

Complex ISNMF: A Phase-Aware Model for Monaural Audio Source Separation. *Magron, P.*, +, *TASLP Jan. 2019 20-31*

CountNet: Estimating the Number of Concurrent Speakers Using Supervised Learning. *Stoter, F.*, +, *TASLP Feb. 2019 268-282*

Exploiting Future Word Contexts in Neural Network Language Models for Speech Recognition. *Chen, X.*, +, *TASLP Sept. 2019 1444-1454*

Glottal Inverse Filtering Using Probabilistic Weighted Linear Prediction. *M.V., A.R.*, +, *TASLP Jan. 2019 114-124*

Semi-Supervised Neural Machine Translation via Marginal Distribution Estimation. *Wang, Y.*, +, *TASLP Oct. 2019 1564-1576*

Sentiment Lexicon Construction With Hierarchical Supervision Topic Model. *Deng, D.*, +, *TASLP April 2019 704-718*

Sound Event Detection and Time-Frequency Segmentation from Weakly Labeled Data. *Kong, Q.*, +, *TASLP April 2019 777-787*

## Q

#### Query languages

Deep Learning for Database Mapping and Asking Clarification Questions in Dialogue Systems. *Korpusik, M.*, +, *TASLP Aug. 2019 1321-1334*

#### Query processing

Deep Learning for Database Mapping and Asking Clarification Questions in Dialogue Systems. *Korpusik, M.*, +, *TASLP Aug. 2019 1321-1334*

Low Resource Keyword Search With Synthesized Crosslingual Exemplars. *Yusuf, B.*, +, *TASLP July 2019 1126-1135*

Siamese Style Convolutional Neural Networks for Sound Search by Vocal Imitation. *Zhang, Y.*, +, *TASLP Feb. 2019 429-441*

Story Ending Selection by Finding Hints From Pairwise Candidate Endings. *Zhou, M.*, +, *TASLP April 2019 719-729*

#### Question answering (information retrieval)

Knowledge Base Question Answering With a Matching-Aggregation Model and Question-Specific Contextual Relations. *Lan, Y.*, +, *TASLP Oct. 2019 1629-1638*

Latent Question Interpretation Through Variational Adaptation. *Parshakova, T.*, +, *TASLP Nov. 2019 1713-1724*

## R

#### Radio applications

Phase-Aware Speech Enhancement Based on Deep Neural Networks. *Zheng, N.*, +, *TASLP Jan. 2019 63-76*

#### Random processes

Automatic Audio Chord Recognition With MIDI-Trained Deep Feature and BLSTM-CRF Sequence Decoding Model. *Wu, Y.*, +, *TASLP Feb. 2019 355-366*

#### Recurrent neural networks

A Gated Recurrent Convolutional Neural Network for Robust Spoofing Detection. *Gomez-Alanis, A.*, +, *TASLP Dec. 2019 1985-1999*

Advancing Acoustic-to-Word CTC Model With Attention and Mixed-Units. *Das, A.*, +, *TASLP Dec. 2019 1880-1892*

Articulatory and Spectrum Information Fusion Based on Deep Recurrent Neural Networks. *Yu, J.*, +, *TASLP April 2019 742-752*

Automatic Audio Chord Recognition With MIDI-Trained Deep Feature and BLSTM-CRF Sequence Decoding Model. *Wu, Y.*, +, *TASLP Feb. 2019 355-366*

CountNet: Estimating the Number of Concurrent Speakers Using Supervised Learning. *Stoter, F.*, +, *TASLP Feb. 2019 268-282*

Deep Learning for Talker-Dependent Reverberant Speaker Separation: An Empirical Study. *Delfarah, M.*, +, *TASLP Nov. 2019 1839-1848*

Exploiting Future Word Contexts in Neural Network Language Models for Speech Recognition. *Chen, X.*, +, *TASLP Sept. 2019 1444-1454*

Gated Residual Networks With Dilated Convolutions for Monaural Speech Enhancement. *Tan, K.*, +, *TASLP Jan. 2019 189-198*

Non-Intrusive Speech Quality Prediction Using Modulation Energies and LSTM-Network. *Cauchi, B.*, +, *TASLP July 2019 1151-1163*

Recurrent Neural Network Language Model Adaptation for Multi-Genre Broadcast Speech Recognition and Alignment. *Deena, S.*, +, *TASLP March 2019 572-582*

Sequence Labeling With Deep Gated Dual Path CNN. *Zhao, L.*, +, *TASLP Dec. 2019 2326-2335*

Speech Emotion Classification Using Attention-Based LSTM. *Xie, Y.*, +, *TASLP Nov. 2019 1675-1685*

Statistical Regression Models for Noise Robust F0 Estimation Using Recurrent Deep Neural Networks. *Kato, A.*, +, *TASLP Dec. 2019 2336-2349*

Tailoring an Interpretable Neural Language Model. *Zhang, Y.*, +, *TASLP July 2019 1164-1178*

**Recursive estimation**

State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance. *Park, J.*, +, *TASLP Oct. 2019 1520-1534*

**Regression analysis**

A Theory on Deep Neural Network Based Vector-to-Vector Regression With an Illustration of Its Expressive Power in Speech Enhancement. *Qi, J.*, +, *TASLP Dec. 2019 1932-1943*

Automatic Identification of Hard and Soft Bone Tissues by Analyzing Drilling Sounds. *Zakeri, V.*, +, *TASLP Feb. 2019 404-414*

BFGAN: Backward and Forward Generative Adversarial Networks for Lexically Constrained Sentence Generation. *Liu, D.*, +, *TASLP Dec. 2019 2350-2361*

Curriculum Learning for Speech Emotion Recognition From Crowdsourced Labels. *Lotfian, R.*, +, *TASLP April 2019 815-826*

RS-CAE-Based AR-Wiener Filtering and Harmonic Recovery for Speech Enhancement. *Yang, Y.*, +, *TASLP Nov. 2019 1752-1762*

Statistical Parametric Speech Synthesis Using Deep Gaussian Processes. *Koriyama, T.*, +, *TASLP May 2019 948-959*

Statistical Regression Models for Noise Robust F0 Estimation Using Recurrent Deep Neural Networks. *Kato, A.*, +, *TASLP Dec. 2019 2336-2349*

Using Generalized Gaussian Distributions to Improve Regression Error Modeling for Deep Learning-Based Speech Enhancement. *Chai, L.*, +, *TASLP Dec. 2019 1919-1931*

**Reverberation**

A Bayesian Hierarchical Model for Speech Enhancement With Time-Varying Audio Channel. *Laufer, Y.*, +, *TASLP Jan. 2019 225-239*

A Robust Target Linearly Constrained Minimum Variance Beamformer With Spatial Cues Preservation for Binaural Hearing Aids. *As'ad, H.*, +, *TASLP Oct. 2019 1549-1563*

Binaural Codebook-Based Speech Enhancement With Atomic Speech Presence Probability. *Wood, S.U.N.*, +, *TASLP Dec. 2019 2150-2161*

Combining Spectral and Spatial Features for Deep Learning Based Blind Speaker Separation. *Wang, Z.*, +, *TASLP Feb. 2019 457-468*

Comparative Analysis of Generalized Sidelobe Cancellation and Multi-Channel Linear Prediction for Speech Dereverberation and Noise Reduction. *Dietzen, T.*, +, *TASLP March 2019 544-558*

Deep Learning for Talker-Dependent Reverberant Speaker Separation: An Empirical Study. *Delfarah, M.*, +, *TASLP Nov. 2019 1839-1848*

Fast Algorithms for Acoustic Impulse Response Shaping. *Krishnan, L.*, +, *TASLP Feb. 2019 392-403*

Joint Acoustic Localization and Dereverberation Through Plane Wave Decomposition and Sparse Regularization. *Antonello, N.*, +, *TASLP Dec. 2019 1893-1905*

Joint Estimation of Reverberation Time and Early-To-Late Reverberation Ratio From Single-Channel Speech Signals. *Xiong, F.*, +, *TASLP Feb. 2019 255-267*

Late Reverberation Cancellation Using Bayesian Estimation of Multi-Channel Linear Predictors and Student's t-Source Prior. *Chetupalli, S.R.*, +, *TASLP June 2019 1007-1018*

Modulation-Domain Kalman Filtering for Monaural Blind Speech Denoising and Dereverberation. *Dionelis, N.*, +, *TASLP April 2019 799-814*

Multichannel Online Dereverberation Based on Spectral Magnitude Inverse Filtering. *Li, X.*, +, *TASLP Sept. 2019 1365-1377*

Multichannel Speech Separation and Enhancement Using the Convolutional Transfer Function. *Li, X.*, +, *TASLP March 2019 645-659*

Non-Intrusive Speech Quality Prediction Using Modulation Energies and LSTM-Network. *Cauchi, B.*, +, *TASLP July 2019 1151-1163*

Robust Joint Estimation of Multimicrophone Signal Model Parameters. *Koutrouvelis, A.I.*, +, *TASLP July 2019 1136-1150*

Sound Localization Based on Phase Difference Enhancement Using Deep Neural Networks. *Pak, J.*, +, *TASLP Aug. 2019 1335-1345*

State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance. *Park, J.*, +, *TASLP Oct. 2019 1520-1534*

Switching Divergences for Spectral Learning in Blind Speech Dereverberation. *Ibarrola, F.J.*, +, *TASLP May 2019 881-891*

Two-Stage Deep Learning for Noisy-Reverberant Speech Enhancement. *Zhao, Y.*, +, *TASLP Jan. 2019 53-62*

Two-Stage Monaural Source Separation in Reverberant Room Environments Using Deep Neural Networks. *Sun, Y.*, +, *TASLP Jan. 2019 125-139*

Underdetermined Reverberant Blind Source Separation: Sparse Approaches for Multiplicative and Convolutional Narrowband Approximation. *Feng, F.*, +, *TASLP Feb. 2019 442-456*

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Unsupervised Detection of Anomalous Sound Based on Deep Learning and the Neyman-Pearson Lemma. *Koizumi, Y.*, +, *TASLP Jan. 2019 212-224*

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Indoor Multiple Sound Source Localization via Multi-Dimensional Assignment Data Association. *Dang, X.*, +, *TASLP Dec. 2019 1944-1956*

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Improving Aspect Term Extraction With Bidirectional Dependency Tree Representation. *Luo, H.*, +, *TASLP July 2019 1201-1212*

Sentiment Lexicon Construction With Hierarchical Supervision Topic Model. *Deng, D.*, +, *TASLP April 2019 704-718*

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Bird Species Recognition Using Unsupervised Modeling of Individual Vocalization Elements. *Jancovic, P.*, +, *TASLP May 2019 932-947*

Complex-Valued Restricted Boltzmann Machine for Speaker-Dependent Speech Parameterization From Complex Spectra. *Nakashika, T.*, +, *TASLP Feb. 2019 244-254*

Sound Event Detection in the DCASE 2017 Challenge. *Mesaros, A.*, +, *TASLP June 2019 992-1006*

Statistical Regression Models for Noise Robust F0 Estimation Using Recurrent Deep Neural Networks. *Kato, A.*, +, *TASLP Dec. 2019 2336-2349*

Weakly Labelled AudioSet Tagging With Attention Neural Networks. *Kong, Q.*, +, *TASLP Nov. 2019 1791-1802*

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Asymmetric Coding for Rate-Constrained Noise Reduction in Binaural Hearing Aids. *Amini, J.*, +, *TASLP Jan. 2019 154-167*

Binaural Codebook-Based Speech Enhancement With Atomic Speech Presence Probability. *Wood, S.U.N.*, +, *TASLP Dec. 2019 2150-2161*

Gaussian Modeling-Based Multichannel Audio Source Separation Exploiting Generic Source Spectral Model. *Duong, T.T.H.*, +, *TASLP Jan. 2019 32-43*

Joint Acoustic Localization and Dereverberation Through Plane Wave Decomposition and Sparse Regularization. *Antonello, N.*, +, *TASLP Dec. 2019 1893-1905*

Modulation-Domain Kalman Filtering for Monaural Blind Speech Denoising and Dereverberation. *Dionelis, N.*, +, *TASLP April 2019 799-814*

Multiple Sound Source Counting and Localization Based on TF-Wise Spatial Spectrum Clustering. *Yang, B.*, +, *TASLP Aug. 2019 1241-1255*

Perceptually Relevant Preservation of Interaural Time Differences in Binaural Hearing Aids. *Itturriet, F.P.*, +, *TASLP April 2019 753-764*

Reconstruction of Mandarin Electrolaryngeal Fricatives With Hybrid Noise Source. *Xiao, K.*, +, *TASLP Feb. 2019 383-391*

Semi-Supervised Multichannel Speech Enhancement With a Deep Speech Prior. *Sekiguchi, K.*, +, *TASLP Dec. 2019 2197-2212*

**Signal processing**

Constrained Learned Feature Extraction for Acoustic Scene Classification. Zhang, T., +, *TASLP Aug. 2019 1216-1228*

**Signal reconstruction**

Reconstruction of Mandarin Electrolaryngeal Fricatives With Hybrid Noise Source. Xiao, K., +, *TASLP Feb. 2019 383-391*

RS-CAE-Based AR-Wiener Filtering and Harmonic Recovery for Speech Enhancement. Yang, Y., +, *TASLP Nov. 2019 1752-1762*

Two-Stage Deep Learning for Noisy-Reverberant Speech Enhancement. Zhao, Y., +, *TASLP Jan. 2019 53-62*

**Signal representation**

Audio Word2vec: Sequence-to-Sequence Autoencoding for Unsupervised Learning of Audio Segmentation and Representation. Chen, Y., +, *TASLP Sept. 2019 1481-1493*

Conv-TasNet: Surpassing Ideal Time-Frequency Magnitude Masking for Speech Separation. Luo, Y., +, *TASLP Aug. 2019 1256-1266*

Efficient Representation and Sparse Sampling of Head-Related Transfer Functions Using Phase-Correction Based on Ear Alignment. Ben-Hur, Z., +, *TASLP Dec. 2019 2249-2262*

Group Sparse Representation With WaveNet Vocoder Adaptation for Spectrum and Prosody Conversion. Sisman, B., +, *TASLP June 2019 1085-1097*

Joint Estimation of Reverberation Time and Early-To-Late Reverberation Ratio From Single-Channel Speech Signals. Xiong, F., +, *TASLP Feb. 2019 255-267*

Modeling the Comb Filter Effect and Interaural Coherence for Binaural Source Separation. Remaggi, L., +, *TASLP Dec. 2019 2263-2277*

Multi-Resolution Common Fate Transform. Pishdadian, F., +, *TASLP Feb. 2019 342-354*

Sound Event Detection in the DCASE 2017 Challenge. Mesaros, A., +, *TASLP June 2019 992-1006*

Switching Divergences for Spectral Learning in Blind Speech Dereverberation. Ibarrola, F.J., +, *TASLP May 2019 881-891*

Underdetermined Reverberant Blind Source Separation: Sparse Approaches for Multiplicative and Convolutional Narrowband Approximation. Feng, F., +, *TASLP Feb. 2019 442-456*

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Multi-Resolution Common Fate Transform. Pishdadian, F., +, *TASLP Feb. 2019 342-354*

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A Geometric Model for Prediction of Spatial Aliasing in 2.5D Sound Field Synthesis. Winter, F., +, *TASLP June 2019 1031-1046*

Efficient Representation and Sparse Sampling of Head-Related Transfer Functions Using Phase-Correction Based on Ear Alignment. Ben-Hur, Z., +, *TASLP Dec. 2019 2249-2262*

Linear Multistep Discretization Methods With Variable Step-Size in Nonlinear Wave Digital Structures for Virtual Analog Modeling. Bernardini, A., +, *TASLP Nov. 2019 1763-1776*

Speech Enhancement Using Noise Estimation With Dynamic Quantile Tracking. Tiwari, N., +, *TASLP Dec. 2019 2301-2312*

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A Geometric Model for Prediction of Spatial Aliasing in 2.5D Sound Field Synthesis. Winter, F., +, *TASLP June 2019 1031-1046*

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Emotion-Semantic-Enhanced Neural Network. Yang, G., +, *TASLP March 2019 531-543*

Sparse Self-Attention LSTM for Sentiment Lexicon Construction. Deng, D., +, *TASLP Nov. 2019 1777-1790*

**Solid modeling**

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**Sound reproduction**

A Geometric Model for Prediction of Spatial Aliasing in 2.5D Sound Field Synthesis. Winter, F., +, *TASLP June 2019 1031-1046*

Efficient Representation and Sparse Sampling of Head-Related Transfer Functions Using Phase-Correction Based on Ear Alignment. Ben-Hur, Z., +, *TASLP Dec. 2019 2249-2262*

On the Influence of Transfer Function Noise on Sound Zone Control in a Room. Moller, M.B., +, *TASLP Sept. 2019 1405-1418*

Robust Personal Audio Geometry Optimization in the SVD-Based Modal Domain. Zhu, Q., +, *TASLP March 2019 610-620*

Three-Dimensional Sound Field Reproduction Based on Weighted Mode-Matching Method. Ueno, N., +, *TASLP Dec. 2019 1852-1867*

**Source separation**

A New Ratio Mask Representation for CASA-Based Speech Enhancement. Bao, F., +, *TASLP Jan. 2019 7-19*

Combining Spectral and Spatial Features for Deep Learning Based Blind Speaker Separation. Wang, Z., +, *TASLP Feb. 2019 457-468*

Complex ISNMF: A Phase-Aware Model for Monaural Audio Source Separation. Magron, P., +, *TASLP Jan. 2019 20-31*

Conv-TasNet: Surpassing Ideal Time-Frequency Magnitude Masking for Speech Separation. Luo, Y., +, *TASLP Aug. 2019 1256-1266*

Deep Learning for Talker-Dependent Reverberant Speaker Separation: An Empirical Study. Delfarah, M., +, *TASLP Nov. 2019 1839-1848*

Dirichlet Latent Variable Model: A Dynamic Model Based on Dirichlet Prior for Audio Processing. Kumar, A., +, *TASLP May 2019 919-931*

Independent Deeply Learned Matrix Analysis for Determined Audio Source Separation. Makishima, N., +, *TASLP Oct. 2019 1601-1615*

Joint Acoustic Localization and Dereverberation Through Plane Wave Decomposition and Sparse Regularization. Antonello, N., +, *TASLP Dec. 2019 1893-1905*

Modeling the Comb Filter Effect and Interaural Coherence for Binaural Source Separation. Remaggi, L., +, *TASLP Dec. 2019 2263-2277*

Multi-Resolution Common Fate Transform. Pishdadian, F., +, *TASLP Feb. 2019 342-354*

Multichannel Speech Separation and Enhancement Using the Convolutional Transfer Function. Li, X., +, *TASLP March 2019 645-659*

Two-Stage Monaural Source Separation in Reverberant Room Environments Using Deep Neural Networks. Sun, Y., +, *TASLP Jan. 2019 125-139*

Unsupervised Speech Enhancement Based on Multichannel NMF-Informed Beamforming for Noise-Robust Automatic Speech Recognition. Shimada, K., +, *TASLP May 2019 960-971*

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Independent Deeply Learned Matrix Analysis for Determined Audio Source Separation. Makishima, N., +, *TASLP Oct. 2019 1601-1615*

Late Reverberation Cancellation Using Bayesian Estimation of Multi-Channel Linear Predictors and Student's t-Source Prior. Chetupalli, S.R., +, *TASLP June 2019 1007-1018*

Noise Covariance Matrix Estimation for Rotating Microphone Arrays. Moore, A.H., +, *TASLP March 2019 519-530*

Uniform Linear Arrays of First-Order Steerable Differential Microphones. Borra, F., +, *TASLP Dec. 2019 1906-1918*

**Speaker recognition**

A Gated Recurrent Convolutional Neural Network for Robust Spoofing Detection. Gomez-Alanis, A., +, *TASLP Dec. 2019 1985-1999*

Adversarial Approximate Inference for Speech to Electrolarynx Conversion. A. P., P., +, *TASLP Dec. 2019 2183-2196*

Combining Spectral and Spatial Features for Deep Learning Based Blind Speaker Separation. Wang, Z., +, *TASLP Feb. 2019 457-468*

Deep Learning for Talker-Dependent Reverberant Speaker Separation: An Empirical Study. Delfarah, M., +, *TASLP Nov. 2019 1839-1848*

Discriminative Neural Embedding Learning for Short-Duration Text-Independent Speaker Verification. Wang, S., +, *TASLP Nov. 2019 1686-1696*

Divide and Conquer: A Deep CASA Approach to Talker-Independent Monaural Speaker Separation. Liu, Y., +, *TASLP Dec. 2019 2092-2102*

Many-to-Many and Completely Parallel-Data-Free Voice Conversion Based on Eigenspace DNN. Hashimoto, T., +, *TASLP Feb. 2019 332-341*



Neural Predictive Coding Using Convolutional Neural Networks Toward Unsupervised Learning of Speaker Characteristics. *Jati, A., +, TASLP Oct. 2019 1577-1589*

Privacy-Preserving iVector-Based Speaker Verification. *Rahulamathavan, Y., +, TASLP March 2019 496-506*

Robust Pitch Estimation and Tracking For Speakers Based on Subband Encoding and The Generalized Labeled Multi-Bernoulli Filter. *Lin, S., TASLP April 2019 827-841*

Speaker Recognition With Random Digit Strings Using Uncertainty Normalized HMM-Based i-Vectors. *Maghsoodi, N., +, TASLP Nov. 2019 1815-1825*

Time-Contrastive Learning Based Deep Bottleneck Features for Text-Dependent Speaker Verification. *Sarkar, A.K., +, TASLP Aug. 2019 1267-1279*

Toward Fail-Safe Speaker Recognition: Trial-Based Calibration With a Reject Option. *Ferrer, L., +, TASLP Jan. 2019 140-153*

Two-Stage Deep Learning for Noisy-Reverberant Speech Enhancement. *Zhao, Y., +, TASLP Jan. 2019 53-62*

Using Phonetic Posteriorgram Based Frame Pairing for Segmental Accent Conversion. *Zhao, G., +, TASLP Oct. 2019 1649-1660*

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ACVAE-VC: Non-Parallel Voice Conversion With Auxiliary Classifier Variational Autoencoder. *Kameoka, H., +, TASLP Sept. 2019 1432-1443*

Advancing Acoustic-to-Word CTC Model With Attention and Mixed-Units. *Das, A., +, TASLP Dec. 2019 1880-1892*

Asymmetric Coding for Rate-Constrained Noise Reduction in Binaural Hearing Aids. *Amini, J., +, TASLP Jan. 2019 154-167*

Binaural Codebook-Based Speech Enhancement With Atomic Speech Presence Probability. *Wood, S.U.N., +, TASLP Dec. 2019 2150-2161*

Conv-TasNet: Surpassing Ideal Time-Frequency Magnitude Masking for Speech Separation. *Luo, Y., +, TASLP Aug. 2019 1256-1266*

Convolutional Neural Networks to Enhance Coded Speech. *Zhao, Z., +, TASLP April 2019 663-678*

Forward-Backward Decoding Sequence for Regularizing End-to-End TTS. *Zheng, Y., +, TASLP Dec. 2019 2067-2079*

Group Sparse Representation With WaveNet Vocoder Adaptation for Spectrum and Prosody Conversion. *Sisman, B., +, TASLP June 2019 1085-1097*

Neural Predictive Coding Using Convolutional Neural Networks Toward Unsupervised Learning of Speaker Characteristics. *Jati, A., +, TASLP Oct. 2019 1577-1589*

Robust Pitch Estimation and Tracking For Speakers Based on Subband Encoding and The Generalized Labeled Multi-Bernoulli Filter. *Lin, S., TASLP April 2019 827-841*

Shape Control of Discrete Generalized Gaussian Distributions for Frequency-Domain Audio Coding. *Sugiura, R., +, TASLP Dec. 2019 2234-2248*

Sinusoidal-Based Lowband Synthesis for Artificial Speech Bandwidth Extension. *Abel, J., +, TASLP April 2019 765-776*

### Speech enhancement

A Bayesian Hierarchical Model for Speech Enhancement With Time-Varying Audio Channel. *Lauffer, Y., +, TASLP Jan. 2019 225-239*

A Joint Learning Algorithm for Complex-Valued T-F Masks in Deep Learning-Based Single-Channel Speech Enhancement Systems. *Lee, J., +, TASLP June 2019 1098-1108*

A New Framework for CNN-Based Speech Enhancement in the Time Domain. *Pandey, A., +, TASLP July 2019 1179-1188*

A New Ratio Mask Representation for CASA-Based Speech Enhancement. *Bao, F., +, TASLP Jan. 2019 7-19*

A Theory on Deep Neural Network Based Vector-to-Vector Regression With an Illustration of Its Expressive Power in Speech Enhancement. *Qi, J., +, TASLP Dec. 2019 1932-1943*

Binaural Codebook-Based Speech Enhancement With Atomic Speech Presence Probability. *Wood, S.U.N., +, TASLP Dec. 2019 2150-2161*

Comparative Analysis of Generalized Sidelobe Cancellation and Multi-Channel Linear Prediction for Speech Dereverberation and Noise Reduction. *Dietzen, T., +, TASLP March 2019 544-558*

DNN-Based Cepstral Excitation Manipulation for Speech Enhancement. *Elshamy, S., +, TASLP Nov. 2019 1803-1814*

Eigenvector-Based Speech Mask Estimation for Multi-Channel Speech Enhancement. *Pfeifenberger, L., +, TASLP Dec. 2019 2162-2172*

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Integration of *a Priori* and Estimated Constraints Into an MVDR Beamformer for Speech Enhancement. *Ali, R., +, TASLP Dec. 2019 2288-2300*

Low-Complexity Multi-Microphone Acoustic Echo Control in the Short-Time Fourier Transform Domain. *Luis Valero, M., +, TASLP March 2019 595-609*

Methods of Extending a Generalized Sidelobe Canceller With External Microphones. *Ali, R., +, TASLP Sept. 2019 1349-1364*

Model-Based Speech Enhancement for Intelligibility Improvement in Binaural Hearing Aids. *Kavalekalam, M.S., +, TASLP Jan. 2019 99-113*

Modulation-Domain Kalman Filtering for Monaural Blind Speech Denoising and Dereverberation. *Dionelis, N., +, TASLP April 2019 799-814*

Multichannel Online Dereverberation Based on Spectral Magnitude Inverse Filtering. *Li, X., +, TASLP Sept. 2019 1365-1377*

Multichannel Speech Separation and Enhancement Using the Convolutional Transfer Function. *Li, X., +, TASLP March 2019 645-659*

Non-Intrusive Speech Quality Prediction Using Modulation Energies and LSTM-Network. *Cauchi, B., +, TASLP July 2019 1151-1163*

On the Relationship Between Short-Time Objective Intelligibility and Short-Time Spectral-Amplitude Mean-Square Error for Speech Enhancement. *Kolbaek, M., +, TASLP Feb. 2019 283-295*

Phase-Aware Speech Enhancement Based on Deep Neural Networks. *Zheng, N., +, TASLP Jan. 2019 63-76*

Reconstruction of Mandarin Electrolaryngeal Fricatives With Hybrid Noise Source. *Xiao, K., +, TASLP Feb. 2019 383-391*

RS-CAE-Based AR-Wiener Filtering and Harmonic Recovery for Speech Enhancement. *Yang, Y., +, TASLP Nov. 2019 1752-1762*

Semi-Supervised Multichannel Speech Enhancement With a Deep Speech Prior. *Sekiguchi, K., +, TASLP Dec. 2019 2197-2212*

Sinusoidal-Based Lowband Synthesis for Artificial Speech Bandwidth Extension. *Abel, J., +, TASLP April 2019 765-776*

Speech Enhancement Based on Teacher-Student Deep Learning Using Improved Speech Presence Probability for Noise-Robust Speech Recognition. *Tu, Y., +, TASLP Dec. 2019 2080-2091*

Speech Enhancement Using Noise Estimation With Dynamic Quantile Tracking. *Tiwari, N., +, TASLP Dec. 2019 2301-2312*

Subjective Evaluation of a Noise-Reduced Training Target for Deep Neural Network-Based Speech Enhancement. *Gelderblom, F.B., +, TASLP March 2019 583-594*

Two-Stage Deep Learning for Noisy-Reverberant Speech Enhancement. *Zhao, Y., +, TASLP Jan. 2019 53-62*

Unsupervised Speech Enhancement Based on Multichannel NMF-Informed Beamforming for Noise-Robust Automatic Speech Recognition. *Shimada, K., +, TASLP May 2019 960-971*

Using Generalized Gaussian Distributions to Improve Regression Error Modeling for Deep Learning-Based Speech Enhancement. *Chai, L., +, TASLP Dec. 2019 1919-1931*

### Speech intelligibility

Binaural Codebook-Based Speech Enhancement With Atomic Speech Presence Probability. *Wood, S.U.N., +, TASLP Dec. 2019 2150-2161*

- DNN-Based Cepstral Excitation Manipulation for Speech Enhancement. *Elshamy, S.*, +, *TASLP Nov. 2019 1803-1814*
- Gated Residual Networks With Dilated Convolutions for Monaural Speech Enhancement. *Tan, K.*, +, *TASLP Jan. 2019 189-198*
- Model-Based Speech Enhancement for Intelligibility Improvement in Binaural Hearing Aids. *Kavalekalam, M.S.*, +, *TASLP Jan. 2019 99-113*
- Modulation-Domain Kalman Filtering for Monaural Blind Speech Denoising and Dereverberation. *Dionelis, N.*, +, *TASLP April 2019 799-814*
- On the Relationship Between Short-Time Objective Intelligibility and Short-Time Spectral-Amplitude Mean-Square Error for Speech Enhancement. *Kolbaek, M.*, +, *TASLP Feb. 2019 283-295*
- Reconstruction of Mandarin Electrolaryngeal Fricatives With Hybrid Noise Source. *Xiao, K.*, +, *TASLP Feb. 2019 383-391*
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- A Robust Target Linearly Constrained Minimum Variance Beamformer With Spatial Cues Preservation for Binaural Hearing Aids. *As'ad, H.*, +, *TASLP Oct. 2019 1549-1563*
- Adversarial Approximate Inference for Speech to Electroglottograph Conversion. *A. P., P.*, +, *TASLP Dec. 2019 2183-2196*
- Articulatory and Spectrum Information Fusion Based on Deep Recurrent Neural Networks. *Yu, J.*, +, *TASLP April 2019 742-752*
- Audio Word2vec: Sequence-to-Sequence Autoencoding for Unsupervised Learning of Audio Segmentation and Representation. *Chen, Y.*, +, *TASLP Sept. 2019 1481-1493*
- Audio-Visual Deep Clustering for Speech Separation. *Lu, R.*, +, *TASLP Nov. 2019 1697-1712*
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- Divide and Conquer: A Deep CASA Approach to Talker-Independent Monaural Speaker Separation. *Liu, Y.*, +, *TASLP Dec. 2019 2092-2102*
- Emotional Voice Conversion Using Dual Supervised Adversarial Networks With Continuous Wavelet Transform F0 Features. *Luo, Z.*, +, *TASLP Oct. 2019 1535-1548*
- Gaussian Modeling-Based Multichannel Audio Source Separation Exploiting Generic Source Spectral Model. *Duong, T.T.H.*, +, *TASLP Jan. 2019 32-43*
- GlottNet—A Raw Waveform Model for the Glottal Excitation in Statistical Parametric Speech Synthesis. *Juvela, L.*, +, *TASLP June 2019 1019-1030*
- Glottal Inverse Filtering Using Probabilistic Weighted Linear Prediction. *M.V., A.R.*, +, *TASLP Jan. 2019 114-124*
- Improving Mispronunciation Detection of Mandarin Tones for Non-Native Learners With Soft-Target Tone Labels and BLSTM-Based Deep Tone Models. *Li, W.*, +, *TASLP Dec. 2019 2012-2024*
- Information Loss in the Human Auditory System. *Jahromi, M.Z.*, +, *TASLP March 2019 472-481*
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- Low Resource Keyword Search With Synthesized Crosslingual Exemplars. *Yusuf, B.*, +, *TASLP July 2019 1126-1135*
- Low-Complexity Multi-Microphone Acoustic Echo Control in the Short-Time Fourier Transform Domain. *Luis Valero, M.*, +, *TASLP March 2019 595-609*
- MRI-Based Vocal Tract Representations for the Three-Dimensional Finite Element Synthesis of Diphthongs. *Arnela, M.*, +, *TASLP Dec. 2019 2173-2182*
- Robust Bayesian Pitch Tracking Based on the Harmonic Model. *Shi, L.*, +, *TASLP Nov. 2019 1737-1751*
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- Speaker Recognition With Random Digit Strings Using Uncertainty Normalized HMM-Based i-Vectors. *Maghsoodi, N.*, +, *TASLP Nov. 2019 1815-1825*
- State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance. *Park, J.*, +, *TASLP Oct. 2019 1520-1534*
- Statistical Regression Models for Noise Robust F0 Estimation Using Recurrent Deep Neural Networks. *Kato, A.*, +, *TASLP Dec. 2019 2336-2349*
- Subjective Evaluation of a Noise-Reduced Training Target for Deep Neural Network-Based Speech Enhancement. *Gelderblom, F.B.*, +, *TASLP March 2019 583-594*
- Switching Divergences for Spectral Learning in Blind Speech Dereverberation. *Ibarrola, F.J.*, +, *TASLP May 2019 881-891*
- Two-Stage Monaural Source Separation in Reverberant Room Environments Using Deep Neural Networks. *Sun, Y.*, +, *TASLP Jan. 2019 125-139*
- Unsupervised Speech Representation Learning Using WaveNet Autoencoders. *Chorowski, J.*, +, *TASLP Dec. 2019 2041-2053*
- Using Generalized Gaussian Distributions to Improve Regression Error Modeling for Deep Learning-Based Speech Enhancement. *Chai, L.*, +, *TASLP Dec. 2019 1919-1931*

### Speech recognition

- Acoustical Assessment of Voice Disorder With Continuous Speech Using ASR Posterior Features. *Liu, Y.*, +, *TASLP June 2019 1047-1059*
- Advancing Acoustic-to-Word CTC Model With Attention and Mixed-Units. *Das, A.*, +, *TASLP Dec. 2019 1880-1892*
- Adversarial Regularization for Attention Based End-to-End Robust Speech Recognition. *Sun, S.*, +, *TASLP Nov. 2019 1826-1838*
- Articulatory and Spectrum Information Fusion Based on Deep Recurrent Neural Networks. *Yu, J.*, +, *TASLP April 2019 742-752*
- Bird Species Recognition Using Unsupervised Modeling of Individual Vocalization Elements. *Jancovic, P.*, +, *TASLP May 2019 932-947*
- Complex-Valued Restricted Boltzmann Machine for Speaker-Dependent Speech Parameterization From Complex Spectra. *Nakashika, T.*, +, *TASLP Feb. 2019 244-254*
- Curriculum Learning for Speech Emotion Recognition From Crowdsourced Labels. *Lofjan, R.*, +, *TASLP April 2019 815-826*
- Detection of Nasalized Voiced Stops in Cleft Palate Speech Using Epoch-Synchronous Features. *Vikram, C.M.*, +, *TASLP July 2019 1189-1200*
- Evolution-Strategy-Based Automation of System Development for High-Performance Speech Recognition. *Moriya, T.*, +, *TASLP Jan. 2019 77-88*
- Exploiting Cross-Lingual Speaker and Phonetic Diversity for Unsupervised Subword Modeling. *Feng, S.*, +, *TASLP Dec. 2019 2000-2011*
- Exploiting Future Word Contexts in Neural Network Language Models for Speech Recognition. *Chen, X.*, +, *TASLP Sept. 2019 1444-1454*
- General Sequence Teacher-Student Learning. *Wong, J.H.M.*, +, *TASLP Nov. 2019 1725-1736*

- Improving Mispronunciation Detection of Mandarin Tones for Non-Native Learners With Soft-Target Tone Labels and BLSTM-Based Deep Tone Models. *Li, W.*, +, *TASLP Dec. 2019 2012-2024*
- Information Loss in the Human Auditory System. *Jahromi, M.Z.*, +, *TASLP March 2019 472-481*
- Language-Adversarial Transfer Learning for Low-Resource Speech Recognition. *Yi, J.*, +, *TASLP March 2019 621-630*
- Listening and Grouping: An Online Autoregressive Approach for Monaural Speech Separation. *Li, Z.*, +, *TASLP April 2019 692-703*
- Low Resource Keyword Search With Synthesized Crosslingual Exemplars. *Yusuf, B.*, +, *TASLP July 2019 1126-1135*
- Machine Comprehension of Spoken Content: TOEFL Listening Test and Spoken SQuAD. *Lee, C.*, +, *TASLP Sept. 2019 1469-1480*
- Mixed-Bandwidth Cross-Channel Speech Recognition via Joint Optimization of DNN-Based Bandwidth Expansion and Acoustic Modeling. *Gao, J.*, +, *TASLP March 2019 559-571*
- Multichannel Online Dereverberation Based on Spectral Magnitude Inverse Filtering. *Li, X.*, +, *TASLP Sept. 2019 1365-1377*
- Phase-Aware Speech Enhancement Based on Deep Neural Networks. *Zheng, N.*, +, *TASLP Jan. 2019 63-76*
- Recurrent Neural Network Language Model Adaptation for Multi-Genre Broadcast Speech Recognition and Alignment. *Deena, S.*, +, *TASLP March 2019 572-582*
- Semantic Speech Retrieval With a Visually Grounded Model of Untranscribed Speech. *Kamper, H.*, +, *TASLP Jan. 2019 89-98*
- Sequence-to-Sequence Acoustic Modeling for Voice Conversion. *Zhang, J.*, +, *TASLP March 2019 631-644*
- Sound Event Detection and Time-Frequency Segmentation from Weakly Labelled Data. *Kong, Q.*, +, *TASLP April 2019 777-787*
- Speech Emotion Classification Using Attention-Based LSTM. *Xie, Y.*, +, *TASLP Nov. 2019 1675-1685*
- Speech Enhancement Based on Teacher-Student Deep Learning Using Improved Speech Presence Probability for Noise-Robust Speech Recognition. *Tu, Y.*, +, *TASLP Dec. 2019 2080-2091*
- Subjective Evaluation of a Noise-Reduced Training Target for Deep Neural Network-Based Speech Enhancement. *Gelderblom, F.B.*, +, *TASLP March 2019 583-594*
- Tailoring an Interpretable Neural Language Model. *Zhang, Y.*, +, *TASLP July 2019 1164-1178*
- Unsupervised Speech Enhancement Based on Multichannel NMF-Informed Beamforming for Noise-Robust Automatic Speech Recognition. *Shimada, K.*, +, *TASLP May 2019 960-971*
- Using Phonetic Posteriorgram Based Frame Pairing for Segmental Accent Conversion. *Zhao, G.*, +, *TASLP Oct. 2019 1649-1660*

#### Speech synthesis

- Analysis of Inter-Pausal Units in Indian Languages and Its Application to Text-to-Speech Synthesis. *Prakash, J.J.*, +, *TASLP Oct. 2019 1616-1628*
- Forward-Backward Decoding Sequence for Regularizing End-to-End TTS. *Zheng, Y.*, +, *TASLP Dec. 2019 2067-2079*
- GlottNet—A Raw Waveform Model for the Glottal Excitation in Statistical Parametric Speech Synthesis. *Juvela, L.*, +, *TASLP June 2019 1019-1030*
- MRI-Based Vocal Tract Representations for the Three-Dimensional Finite Element Synthesis of Diphthongs. *Arnela, M.*, +, *TASLP Dec. 2019 2173-2182*
- Sinusoidal-Based Lowband Synthesis for Artificial Speech Bandwidth Extension. *Abel, J.*, +, *TASLP April 2019 765-776*
- Statistical Parametric Speech Synthesis Using Deep Gaussian Processes. *Koriyama, T.*, +, *TASLP May 2019 948-959*
- Synthesizing 3D Trump: Predicting and Visualizing the Relationship Between Text, Speech, and Articulatory Movements. *Yu, J.*, +, *TASLP Dec. 2019 2223-2233*

#### State-space methods

- State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance. *Park, J.*, +, *TASLP Oct. 2019 1520-1534*

#### Statistical analysis

- Convolutional Neural Networks to Enhance Coded Speech. *Zhao, Z.*, +, *TASLP April 2019 663-678*
- Enhanced Feature Summarizing for Effective Cover Song Identification. *Hu, J.*, +, *TASLP Dec. 2019 2113-2126*
- GlottNet—A Raw Waveform Model for the Glottal Excitation in Statistical Parametric Speech Synthesis. *Juvela, L.*, +, *TASLP June 2019 1019-1030*
- Group Sparse Representation With WaveNet Vocoder Adaptation for Spectrum and Prosody Conversion. *Sisman, B.*, +, *TASLP June 2019 1085-1097*
- Phonology-Augmented Statistical Framework for Machine Transliteration Using Limited Linguistic Resources. *Ngo, G.H.*, +, *TASLP Jan. 2019 199-211*
- Sound Event Detection in the DCASE 2017 Challenge. *Mesaros, A.*, +, *TASLP June 2019 992-1006*
- TEND: A Target-Dependent Representation Learning Framework for News Document. *Duan, J.*, +, *TASLP Dec. 2019 2313-2325*
- Unsupervised Detection of Anomalous Sound Based on Deep Learning and the Neyman-Pearson Lemma. *Koizumi, Y.*, +, *TASLP Jan. 2019 212-224*

#### Statistical distributions

- Adversarial Regularization for Attention Based End-to-End Robust Speech Recognition. *Sun, S.*, +, *TASLP Nov. 2019 1826-1838*
- Joint Estimation of Reverberation Time and Early-To-Late Reverberation Ratio From Single-Channel Speech Signals. *Xiong, F.*, +, *TASLP Feb. 2019 255-267*

#### Stochastic processes

- A Multi-Stage Algorithm for Acoustic Physical Model Parameters Estimation. *Gabrielli, L.*, +, *TASLP Aug. 2019 1229-1240*

#### Supervised learning

- Independent Deeply Learned Matrix Analysis for Determined Audio Source Separation. *Makishima, N.*, +, *TASLP Oct. 2019 1601-1615*
- Semi-Supervised Multichannel Speech Enhancement With a Deep Speech Prior. *Sekiguchi, K.*, +, *TASLP Dec. 2019 2197-2212*

#### Support vector machines

- Automatic Identification of Hard and Soft Bone Tissues by Analyzing Drilling Sounds. *Zakeri, V.*, +, *TASLP Feb. 2019 404-414*
- Detection of Nasalized Voiced Stops in Cleft Palate Speech Using Epoch-Synchronous Features. *Vikram, C.M.*, +, *TASLP July 2019 1189-1200*

#### Surgery

- Automatic Identification of Hard and Soft Bone Tissues by Analyzing Drilling Sounds. *Zakeri, V.*, +, *TASLP Feb. 2019 404-414*

#### Synthesizers

- InverSynth: Deep Estimation of Synthesizer Parameter Configurations From Audio Signals. *Barkan, O.*, +, *TASLP Dec. 2019 2385-2396*

## T

#### Target tracking

- Indoor Multiple Sound Source Localization via Multi-Dimensional Assignment Data Association. *Dang, X.*, +, *TASLP Dec. 2019 1944-1956*

#### Telecommunication

- Phase-Aware Speech Enhancement Based on Deep Neural Networks. *Zheng, N.*, +, *TASLP Jan. 2019 63-76*

#### Telecommunication control

- Neurally Controlled Graphic Equalizer. *Valimaki, V.*, +, *TASLP Dec. 2019 2140-2149*

#### Telecommunication power management

- Relative Acoustic Transfer Function Estimation in Wireless Acoustic Sensor Networks. *Zhang, J.*, +, *TASLP Oct. 2019 1507-1519*

#### Television broadcasting

- General Sequence Teacher-Student Learning. *Wong, J.H.M.*, +, *TASLP Nov. 2019 1725-1736*

#### Text analysis

- An Efficient Framework for Sentence Similarity Modeling. *Quan, Z.*, +, *TASLP April 2019 853-865*
- Analysis of Inter-Pausal Units in Indian Languages and Its Application to Text-to-Speech Synthesis. *Prakash, J.J.*, +, *TASLP Oct. 2019 1616-1628*
- Beyond Error Propagation: Language Branching Also Affects the Accuracy of Sequence Generation. *Wu, L.*, +, *TASLP Dec. 2019 1868-1879*

- BFGAN: Backward and Forward Generative Adversarial Networks for Lexically Constrained Sentence Generation. *Liu, D.*, +, *TASLP Dec. 2019 2350-2361*
- Deep Learning for Database Mapping and Asking Clarification Questions in Dialogue Systems. *Korpusik, M.*, +, *TASLP Aug. 2019 1321-1334*
- Effective Subword Segmentation for Text Comprehension. *Zhang, Z.*, +, *TASLP Nov. 2019 1664-1674*
- Global-Local Mutual Attention Model for Text Classification. *Ma, Q.*, +, *TASLP Dec. 2019 2127-2139*
- Real-Word Errors in Arabic Texts: A Better Algorithm for Detection and Correction. *Azmi, A.M.*, +, *TASLP Aug. 2019 1308-1320*
- Sequence Labeling With Deep Gated Dual Path CNN. *Zhao, L.*, +, *TASLP Dec. 2019 2326-2335*
- Sparse Self-Attention LSTM for Sentiment Lexicon Construction. *Deng, D.*, +, *TASLP Nov. 2019 1777-1790*
- Synthesizing 3D Trump: Predicting and Visualizing the Relationship Between Text, Speech, and Articulatory Movements. *Yu, J.*, +, *TASLP Dec. 2019 2223-2233*
- TEND: A Target-Dependent Representation Learning Framework for News Document. *Duan, J.*, +, *TASLP Dec. 2019 2313-2325*
- Text Generation From Tables. *Bao, J.*, +, *TASLP Feb. 2019 311-320*
- Time-domain analysis**
- Convolutional Neural Networks to Enhance Coded Speech. *Zhao, Z.*, +, *TASLP April 2019 663-678*
- Iterative DFT-Domain Inverse Filter Optimization Using a Weighted Least-Squares Criterion. *Schneider, M.*, +, *TASLP Dec. 2019 1957-1969*
- Multichannel Online Dereverberation Based on Spectral Magnitude Inverse Filtering. *Li, X.*, +, *TASLP Sept. 2019 1365-1377*
- Time-frequency analysis**
- A Joint Learning Algorithm for Complex-Valued T-F Masks in Deep Learning-Based Single-Channel Speech Enhancement Systems. *Lee, J.*, +, *TASLP June 2019 1098-1108*
- A Low Latency Approach for Blind Source Separation. *Chua, J.*, +, *TASLP Aug. 2019 1280-1294*
- Conv-TasNet: Surpassing Ideal Time-Frequency Magnitude Masking for Speech Separation. *Luo, Y.*, +, *TASLP Aug. 2019 1256-1266*
- Modeling the Comb Filter Effect and Interaural Coherence for Binaural Source Separation. *Remaggi, L.*, +, *TASLP Dec. 2019 2263-2277*
- Multi-Resolution Common Fate Transform. *Pishdadian, F.*, +, *TASLP Feb. 2019 342-354*
- Multiple Sound Source Counting and Localization Based on TF-Wise Spatial Spectrum Clustering. *Yang, B.*, +, *TASLP Aug. 2019 1241-1255*
- Phase-Aware Speech Enhancement Based on Deep Neural Networks. *Zheng, N.*, +, *TASLP Jan. 2019 63-76*
- Robust Pitch Estimation and Tracking For Speakers Based on Subband Encoding and The Generalized Labeled Multi-Bernoulli Filter. *Lin, S.*, *TASLP April 2019 827-841*
- Robust Speaker Localization Guided by Deep Learning-Based Time-Frequency Masking. *Wang, Z.*, +, *TASLP Jan. 2019 178-188*
- Tolerance analysis**
- On Mainlobe Orientation of the First- and Second-Order Differential Microphone Arrays. *Tu, Q.*, +, *TASLP Dec. 2019 2025-2040*
- Tracking**
- Robust Bayesian Pitch Tracking Based on the Harmonic Model. *Shi, L.*, +, *TASLP Nov. 2019 1737-1751*
- Transfer functions**
- Binaural Codebook-Based Speech Enhancement With Atomic Speech Presence Probability. *Wood, S.U.N.*, +, *TASLP Dec. 2019 2150-2161*
- Directional Equalization of Sparse Head-Related Transfer Function Sets for Spatial Upsampling. *Porschmann, C.*, +, *TASLP June 2019 1060-1071*
- Efficient Representation and Sparse Sampling of Head-Related Transfer Functions Using Phase-Correction Based on Ear Alignment. *Ben-Hur, Z.*, +, *TASLP Dec. 2019 2249-2262*
- Integration of *a Priori* and Estimated Constraints Into an MVDR Beamformer for Speech Enhancement. *Ali, R.*, +, *TASLP Dec. 2019 2288-2300*
- Multichannel Speech Separation and Enhancement Using the Convolutional Transfer Function. *Li, X.*, +, *TASLP March 2019 645-659*
- Null-Steering Beamformer-Based Feedback Cancellation for Multi-Microphone Hearing Aids With Incoming Signal Preservation. *Schepker, H.*, +, *TASLP April 2019 679-691*
- On the Influence of Continuous Subject Rotation During High-Resolution Head-Related Transfer Function Measurements. *Richter, J.*, +, *TASLP April 2019 730-741*
- On the Influence of Transfer Function Noise on Sound Zone Control in a Room. *Moller, M.B.*, +, *TASLP Sept. 2019 1405-1418*
- Reconstruction of Mandarin Electrolaryngeal Fricatives With Hybrid Noise Source. *Xiao, K.*, +, *TASLP Feb. 2019 383-391*
- Relative Acoustic Transfer Function Estimation in Wireless Acoustic Sensor Networks. *Zhang, J.*, +, *TASLP Oct. 2019 1507-1519*
- Robust Joint Estimation of Multimicrophone Signal Model Parameters. *Koutrouvelis, A.I.*, +, *TASLP July 2019 1136-1150*
- State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance. *Park, J.*, +, *TASLP Oct. 2019 1520-1534*
- Transient response**
- Fast Algorithms for Acoustic Impulse Response Shaping. *Krishnan, L.*, +, *TASLP Feb. 2019 392-403*
- Late Reverberation Cancellation Using Bayesian Estimation of Multi-Channel Linear Predictors and Student's t-Source Prior. *Chetupalli, S.R.*, +, *TASLP June 2019 1007-1018*
- Two-Stage Monaural Source Separation in Reverberant Room Environments Using Deep Neural Networks. *Sun, Y.*, +, *TASLP Jan. 2019 125-139*
- Tree data structures**
- Improving Aspect Term Extraction With Bidirectional Dependency Tree Representation. *Luo, H.*, +, *TASLP July 2019 1201-1212*
- Tree searching**
- Improving Conditional Sequence Generative Adversarial Networks by Step-wise Evaluation. *Tuan, Y.*, +, *TASLP April 2019 788-798*
- Trees (mathematics)**
- An Efficient Framework for Sentence Similarity Modeling. *Quan, Z.*, +, *TASLP April 2019 853-865*

## U

**Ubiquitous computing**

Dynamic Working Memory for Context-Aware Response Generation. *Xu, Z.*, +, *TASLP Sept. 2019 1419-1431*

**Unsupervised learning**

Audio Word2vec: Sequence-to-Sequence Autoencoding for Unsupervised Learning of Audio Segmentation and Representation. *Chen, Y.*, +, *TASLP Sept. 2019 1481-1493*

Effective Subword Segmentation for Text Comprehension. *Zhang, Z.*, +, *TASLP Nov. 2019 1664-1674*

Neural Predictive Coding Using Convolutional Neural Networks Toward Unsupervised Learning of Speaker Characteristics. *Jati, A.*, +, *TASLP Oct. 2019 1577-1589*

Semi-Supervised Multichannel Speech Enhancement With a Deep Speech Prior. *Sekiguchi, K.*, +, *TASLP Dec. 2019 2197-2212*

Unsupervised Detection of Anomalous Sound Based on Deep Learning and the Neyman-Pearson Lemma. *Koizumi, Y.*, +, *TASLP Jan. 2019 212-224*

## V

**Variational techniques**

Late Reverberation Cancellation Using Bayesian Estimation of Multi-Channel Linear Predictors and Student's t-Source Prior. *Chetupalli, S.R.*, +, *TASLP June 2019 1007-1018*

**Vector quantization**

Unsupervised Speech Representation Learning Using WaveNet Autoencoders. *Chorowski, J.*, +, *TASLP Dec. 2019 2041-2053*

**Vectors**

A Theory on Deep Neural Network Based Vector-to-Vector Regression With an Illustration of Its Expressive Power in Speech Enhancement. *Qi, J.*, +, *TASLP Dec. 2019 1932-1943*

Differential Kronecker Product Beamforming. *Cohen, I.*, +, *TASLP May 2019 892-902*

Speaker Recognition With Random Digit Strings Using Uncertainty Normalized HMM-Based i-Vectors. *Maghsoodi, N.*, +, *TASLP Nov. 2019 1815-1825*

Story Ending Selection by Finding Hints From Pairwise Candidate Endings. *Zhou, M.*, +, *TASLP April 2019 719-729*

#### Visual perception

Attention With Sparsity Regularization for Neural Machine Translation and Summarization. *Zhang, J.*, +, *TASLP March 2019 507-518*

#### Vocabulary

Advancing Acoustic-to-Word CTC Model With Attention and Mixed-Units. *Das, A.*, +, *TASLP Dec. 2019 1880-1892*

Information Loss in the Human Auditory System. *Jahromi, M.Z.*, +, *TASLP March 2019 472-481*

#### Vocoders

GlottNet—A Raw Waveform Model for the Glottal Excitation in Statistical Parametric Speech Synthesis. *Juvela, L.*, +, *TASLP June 2019 1019-1030*

Group Sparse Representation With WaveNet Vocoder Adaptation for Spectrum and Prosody Conversion. *Sisman, B.*, +, *TASLP June 2019 1085-1097*

Sequence-to-Sequence Acoustic Modeling for Voice Conversion. *Zhang, J.*, +, *TASLP March 2019 631-644*

#### Voice activity detection

Extraction of Octave Spectra Information for Spoofing Attack Detection. *Yang, J.*, +, *TASLP Dec. 2019 2373-2384*

Near-Field Acoustic Source Localization Using Spherical Harmonic Features. *Varanasi, V.*, +, *TASLP Dec. 2019 2054-2066*

## W

#### Wave digital filters

Linear Multistep Discretization Methods With Variable Step-Size in Nonlinear Wave Digital Structures for Virtual Analog Modeling. *Bernardini, A.*, +, *TASLP Nov. 2019 1763-1776*

#### Wave equations

Directional Sources in Wave-Based Acoustic Simulation. *Bilbao, S.*, +, *TASLP Feb. 2019 415-428*

MRI-Based Vocal Tract Representations for the Three-Dimensional Finite Element Synthesis of Diphthongs. *Arneta, M.*, +, *TASLP Dec. 2019 2173-2182*

#### Wavelet transforms

Automatic Identification of Hard and Soft Bone Tissues by Analyzing Drilling Sounds. *Zakeri, V.*, +, *TASLP Feb. 2019 404-414*

Emotional Voice Conversion Using Dual Supervised Adversarial Networks With Continuous Wavelet Transform F0 Features. *Luo, Z.*, +, *TASLP Oct. 2019 1535-1548*

#### Web sites

Knowledge Base Question Answering With a Matching-Aggregation Model and Question-Specific Contextual Relations. *Lan, Y.*, +, *TASLP Oct. 2019 1629-1638*

#### White noise

Differential Kronecker Product Beamforming. *Cohen, I.*, +, *TASLP May 2019 892-902*

Incoherent Synthesis of Sparse Arrays for Frequency-Invariant Beamforming. *Buchris, Y.*, +, *TASLP March 2019 482-495*

On Robust and High Directive Beamforming With Small-Spacing Microphone Arrays for Scattered Sources. *Wang, X.*, +, *TASLP April 2019 842-852*

Uniform Linear Arrays of First-Order Steerable Differential Microphones. *Borra, F.*, +, *TASLP Dec. 2019 1906-1918*

#### Wiener filters

A Bayesian Hierarchical Model for Speech Enhancement With Time-Varying Audio Channel. *Lauffer, Y.*, +, *TASLP Jan. 2019 225-239*

A Convex Approximation of the Relaxed Binaural Beamforming Optimization Problem. *Koutrouvelis, A.I.*, +, *TASLP Feb. 2019 321-331*

A New Ratio Mask Representation for CASA-Based Speech Enhancement. *Bao, F.*, +, *TASLP Jan. 2019 7-19*

Perceptually Relevant Preservation of Interaural Time Differences in Binaural Hearing Aids. *Itturriet, F.P.*, +, *TASLP April 2019 753-764*

Recursive Least-Squares Algorithms for the Identification of Low-Rank Systems. *Elisei-Iliescu, C.*, +, *TASLP May 2019 903-918*

RS-CAE-Based AR-Wiener Filtering and Harmonic Recovery for Speech Enhancement. *Yang, Y.*, +, *TASLP Nov. 2019 1752-1762*

State-Space Microphone Array Nonlinear Acoustic Echo Cancellation Using Multi-Microphone Near-End Speech Covariance. *Park, J.*, +, *TASLP Oct. 2019 1520-1534*

Unsupervised Speech Enhancement Based on Multichannel NMF-Informed Beamforming for Noise-Robust Automatic Speech Recognition. *Shimada, K.*, +, *TASLP May 2019 960-971*

#### Wireless sensor networks

DOA-Based Three-Dimensional Node Geometry Calibration in Acoustic Sensor Networks and Its Cramér–Rao Bound and Sensitivity Analysis. *Wang, R.*, +, *TASLP Sept. 2019 1455-1468*

Relative Acoustic Transfer Function Estimation in Wireless Acoustic Sensor Networks. *Zhang, J.*, +, *TASLP Oct. 2019 1507-1519*

#### Word processing

Effective Subword Segmentation for Text Comprehension. *Zhang, Z.*, +, *TASLP Nov. 2019 1664-1674*

Future-Aware Knowledge Distillation for Neural Machine Translation. *Zhang, B.*, +, *TASLP Dec. 2019 2278-2287*