

# List of Publications

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## Ph.D. Thesis

- [1] Yi-Chiao Wu, "Incorporating prior knowledge on speech production mechanism into neural speech waveform generation," in the graduate school of informatics (artificial intelligent group) of Nagoya University, Feb. 2021.

## Journal Papers

- [1] Y.-C. Wu, P. L. Tobing, K. Kobayashi, T. Hayashi, and T. Toda, "Non-parallel voice conversion system with WaveNet vocoder and collapsed speech suppression," in IEEE Access, vol. 8, pp. 62094–62106, Apr. 2020.
- [2] Y.-C. Wu, T. Hayashi, P. L. Tobing, K. Kobayashi, and T. Toda, "Quasi-Periodic WaveNet: an autoregressive raw waveform generative model with pitch-dependent dilated convolution neural network," in IEEE/ACM Transactions on Audio, Speech, and Language Processing, vol. 29, pp. 1134–1148, 2021.
- [3] Y.-C. Wu, T. Hayashi, T. Okamoto, H. Kawai, and T. Toda, "Quasi-Periodic Parallel WaveGAN: a non-autoregressive raw waveform generative model with pitch-dependent dilated convolution neural network," in IEEE/ACM Transactions on Audio, Speech, and Language Processing, vol. 29, pp. 792–806, 2021.
- [4] H.-T. Hwang, Y.-C. Wu, Y.-H. Peng, C.-C. Hsu, Y. Tsao, H.-M. Wang, Y.-R. Wang, and S.-H. Chen, "Voice conversion based on locally linear embedding," in Journal of Information Science and Engineering, vol. 34, pp. 1469–1491, 2018.
- [5] H.-T. Hwang, Y.-C. Wu, S.-S. Wang, C.-C. Hsu, Y. Tsao, H.-M. Wang, Y.-R. Wang, and S.-H. Chen, "Locally linear embedding based post-filtering for speech enhancement," in Journal of Information Science and Engineering, vol. 34, pp. 1493–1516, 2018.
- [6] P. L. Tobing, Y.-C. Wu, T. Hayashi, K. Kobayashi, and T. Toda, "Voice conversion with cycleRNN-based spectral mapping and finely tuned WaveNet vocoder," in IEEE Access, vol. 7, pp. 171114–171125, Apr. 2019.
- [7] X. Wang, J. Yamagishi, M. Todisco, H. Delgado, A. Nautsch, N. Evans, M. Sahidullah, V. Vestman, T. Kinnunen, K.A. Lee, L. Juvela, P. Alku, Y.-H. Peng, H.-T. Hwang, Y. Tsao, H.-M. Wang, S. Le Maguer, M. Becker, F. Henderson, R. Clark, Y. Zhang, Q. Wang, Y. Jia, K. Onuma, K. Mushika, T. Kaneda, Y. Jiang, L.-J. Liu, Y.-C. Wu, W.-C. Huang, T. Toda, K. Tanaka, H. Kameoka, I. Steiner, D. Matrouf, J.-F. Bonastre, A. Govender, S. Ronanki, J.-X. Zhang, Z.-H. Ling, "ASVspoof 2019: a large-scale public database of synthetic, converted

and replayed speech,” in *Computer Speech and Language*, Vol. 64, Article 101114, 25 pages, Nov. 2020.

- [8] P. L. Tobing, Y.-C. Wu, K. Kobayashi, T. Hayashi, and T. Toda, “An evaluation of voice conversion with neural network spectral mapping models and WaveNet vocoder,” in *APSIPA Transactions on Signal and Information Processing*, vol. 9, e26, pp. 1-14, Nov. 2020.
- [9] W. -C. Huang and T. Hayashi and Y. -C. Wu and H. Kameoka and T. Toda, “Pretraining Techniques for Sequence-to-Sequence Voice Conversion,” in *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, vol. 29, pp. 745-755, 2021.

## International Conferences

- [1] Y.-C. Wu, H.-T. Hwang, C.-C. Hsu, Y. Tsao, and H.-M. Wang, “Locally linear embedding for exemplar-based spectral conversion,” *Proc. INTERSPEECH*, pp. 1652–165, Sept. 2016.
- [2] Y.-C. Wu, H.-T. Hwang, S.-S. Wang, C.-C. Hsu, Y.-H. Lai, Y. Tsao, and H.-M. Wang, “A locally linear embedding based postfiltering approach for speech enhancement,” *Proc. ICCASP*, pp. 5555–5559, Mar. 2017.
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- [4] Y.-C. Wu, P. L. Tobing, T. Hayashi, K. Kobayashi, and T. Toda, “The NU non-parallel voice conversion system for the voice conversion challenge 2018,” *Proc. Speaker Odyssey*, pp. 211–218, Les Sables d’Olonne, France, Jun. 2018.
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- [7] Y.-C. Wu, P. L. Tobing, T. Hayashi, K. Kobayashi, and T. Toda, “Statistical voice conversion with quasi-periodic WaveNet vocoder,” *Proc. SSW10*, pp. 63–68, Vienna, Austria, Sep. 2019.
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- [14] P. L. Tobing, Y.-C. Wu, T. Hayashi, K. Kobayashi, and T. Toda, “NU voice conversion system for the voice conversion challenge 2018,” Proc. Speaker Odyssey, pp. 219–226, Les Sables d’Olonne, France, Jun. 2018.
- [15] Y.-H. Peng, H.-T. Hwang, Y.-C. Wu, Y. Tsao, and H.-M. Wang, “Exemplar-based spectral detail compensation for voice conversion,” Proc. INTERSPEECH, pp. 486–490, Hyderabad, India, Sep. 2018.
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- [17] P. L. Tobing, Y.-C. Wu, T. Hayashi, K. Kobayashi, and T. Toda, “Voice conversion with cyclic recurrent neural network and fine-tuned WaveNet vocoder,” Proc. ICASSP, pp. 6815–6819, Brighton, UK, May 2019.
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- [21] W.-C. Huang, Y.-C. Wu, K. Kobayashi, Y.-H. Peng, H.-T. Hwang, P.L. Tobing, Y. Tsao, H.-M. Wang, and T. Toda, “Generalization of spectrum differential based direct waveform modification for voice conversion,” Proc. SSW10, pp. 57–62, Vienna, Austria, Sep. 2019.
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- [24] W.-C. Huang, T. Hayashi, Y.-C. Wu, H. Kameoka, and T. Toda, “Voice transformer network: sequence-to-sequence voice conversion using transformer with text-to-speech pretraining,” Proc. INTERSPEECH, Full virtual, Oct. 2020.

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