Biography

Maoshen Jia is currently an associate professor in the Speech and Audio Signal Processing Lab, Faculty of Information Technology, Beijing University of Technology. Dr Jia received the Ph.D. degree in Electronic Science and Technology in 2010 from Beijing University of Technology, China. His current research interests include multichannel audio signal processing, audio coding and sound field reproduction. He has published over 30 papers in journals and major conferences, including IEEE/ACM Transactions on Audio Speech and Language Processing, Journal of Ambient Intelligence and Humanized Computing, IEEE ICASSP, APSIPA ASC, IEEE ISSPIT, IEEE ChinaSIP and ICALIP. He serves as reviewers for IEEE/ACM Transactions on Audio Speech and Language Processing, Journal of Ambient Intelligence and Humanized Computing, Journal of Networks, APSIPA ASC, IEEE ChinaSIP, ICOT 2015，IEEE ISSPIT, etc. He has participated in many research projects supported by National Natural Science Foundation of China, Ministry of Education, and Beijing Postdoctoral Research Foundation. He is a senior member of IEEE, a member of AES, a member of ACM, a member of APSIPA, a member of IEICE and a senior member of Chinese Institute of Electronics (CIE).

Curriculum Vitae

Maoshen Jia

Ph.D

Associate Professor

Speech and Audio Signal Processing Lab

Faculty of Information Technology

Beijing University of Technology

Qualifications

Jul. 2010: Ph.D., Beijing University of Technology, Beijing, China.

Jul. 2005: Bachelor of Engineering, Hebei University, Baoding, Hebei, China.

Employment History

July 2010-June 2016: Assistant professor, School of Electronic Information and Control Engineering, Beijing University of Technology, Beijing, China

Since July 2016: Associate professor, Faculty of Information Technology, Beijing University of Technology, Beijing, China

Professional Membership

IEEE Senior Member, AES Member, ACM Member, CIE Senior Member, APSIPA Member, IEICE Member.

Recent Selected Publications

1. Maoshen Jia, Ziyu Yang, Changchun Bao, Xiguang Zheng, Christian Ritz. Encoding Multiple Audio Objects Using Intra-object Sparsity. *IEEE/ACM Transactions on Audio, Speech, and Language Processing*. 2015, 23(6):1082-1095.
2. Maoshen Jia, Jundai Sun, Changchun Bao. Real-Time Multiple Sound Source Localization and Counting Using a Sound field Microphone. *Journal of Ambient Intelligence and Humanized Computing* (online), DOI: 10.1007/s12652-016-0388-x.
3. Maoshen Jia, Wenbei Wang, Ziyu Yang. 2.5D Sound Field Reproduction Using Higher Order Loudspeakers. *Cybernetics and Information Technologies*. 2015, 15(6):5-15.
4. Wenbei Wang, Maoshen Jia, Changchun Bao, Jiaming Zhang. 2.5D Interior/exterior sound field reproduction and its extension to narrowband speech signals. 2016 *IEEE ICALIP*. Shanghai, July 11-12, 2016:7-12.
5. Ziyu Yang, Maoshen Jia, Changchun Bao, and Wenbei Wang. An Analysis-by-Synthesis Encoding Approach for Multiple Audio Objects. *2015 APSIPA ASC*. Hong Kong, December 16-19, 2015:59-62.
6. Lingsong zhou, Maoshen JIA, Changchun BAO, Bing BU. Multi-source sound field reproduction using cylindrical harmonic analysis. 2014 *IEEE ChinaSIP*, Xi'an, China, July 7-9, 2014, 129-132.
7. Feng Bao, Maoshen Jia, Changchun Bao, Huijing Dou. Speech Enhancement Based on A Novel Weighting Spectral Distortion Measure, *2014 APSIPA ASC*, Siem Reap, Combodia, Dec.9-12.2014.
8. Maoshen JIA, Changchun BAO, Xin LIU et al. An Embedded Stereo Speech and Audio Coding Method Based on Principal Component Analysis. *IEEE International Symposium on Signal Processing and Information Technology*, Bilbao, Spain, December 14-17, 2011, 321-325.
9. Bing Bu, Changchun Bao, Maoshen Jia. Conversion of Multichannel Sound Signals Based on Spherical Harmonics with L1-norm Constraint. 2015 *ChinaSIP*, Cheng'du, China, July 11-15, 2015, 79-83.

10. Mengfang Za, Changchun Bao, Maoshen Jia. 3D Multizone Soundfield Reproduction Using Spherical Harmonic Analysis. 2015 *ChinaSIP*, Cheng'du, China, July 11-15, 2015, 625-629.
11. Bing Bu, Changchun Bao, Maoshen Jia, Rong Zhu, The design of ambisonic reproduction system based on dynamic gain parameters. 39th *IEEE ICASSP*, 2014, 4486-4490.
12. Lingsong Zhou, Changchun Bao, Maoshen Jia, Bing Bu. Range Extrapolation of Head-Related Transfer Function using Improved Higher Order Ambisonics. 2014 *APSIPA ASC*, Siem Reap, Combodia, Dec.9-12.2014.
13. Rong Zhu, Changchun Bao, MaoShen Jia, Bing Bu, Ling-Song Zhou. The Design of HOA Irregular Decoders Based on the Optimal Symmetrical Virtual Microphone Response. *2014 APSIPA ASC*, Siem Reap, Combodia, Dec.9-12.2014
14. Feng Bao, Huijing Dou, Maoshen Jia, Changchun Bao. A Novel Speech Enhancement Method Using Power Spectra Smooth in Wiener Filtering. *2014 APSIPA ASC,* Siem Reap, Combodia, Dec.9-12.2014.
15. Xiaoming, Li, Changchun Bao, Maoshen Jia. A Sinusoidal audio and speech analysis/synthesis model based on improved EMD by adding pure tone. *2011 IEEE International Workshop on Machine Learning for Signal Processing* September 18-21, 2011

Research Activities and Interests

Speech and audio signal processing, include: multiple sound source localization, blind multiple speech objects separation, audio coding, and sound field reproduction.

Academic Awards:

Award for "Best Presentation of Journal paper" for the paper titled "Encoding Multiple Audio Objects Using Intra-object Sparsity" published in the IEEE/ACM Transactions on Audio, Speech and Language Processing and presented at the IEEE China Summit and International Conference on Signal and Information Processing, Chengdu, China, July 2015.