## (英文版)

### **Brief**

## (照片)

JiQing Han received the B.S., M.S. in electrical engineering, and Ph.D. degrees in computer science from the Harbin Institute of Technology, Harbin, China, in 1987, 1990, and 1998, respectively. From June 1996 to January 1998, he was a Visiting Scientist in System Engineering Research Institute, South Korea.

Currently, he is a Professor of the School of Computer Science and Technology, Harbin Institute of Technology. He is a member of IEEE, Vice Chairman of Society of speech processing, Association for Chinese information processing, Vice Chairman of Standing Committee of National Conference on Man-Machine speech Communication, China, member of the editorial board of Journal of Chinese Information Processing, and member of the editorial board of the Journal of Data Acquisition & Processing.

Prof. Han is undertaking several projects from the National Natural Science Foundation, 863Hi-tech Program, National Basic Research Program (973 Program). He has won three Second Prize and two Third Prize awards of Science and Technology of Ministry/Province. He has published more than 180 papers and 4 books. His research fields include speech signal processing and audio information processing.

### **Education**

Associate Professor

1994.09-1998.06 Harbin Institute of Technology, Ph.D. of Computer Science and Engineering in Department of Computer Science and Engineering.

1987.09-1990.03 Harbin Institute of Technology, M.E. of Pattern Recognition in Department of Electrical Engineering

1983.09-1987.09 Harbin Institute of Technology, B.S. of Pattern Recognition in Department of Electrical Engineering.

# Work and Research Experience

2001.01-present	School of Computer Science and Engineering, Harbin Institute of Technology,
Professor	
1998.01-2001.08	School of Computer Science and Engineering, Harbin Institute of Technology,

1996.06-1998.01 System Engineering Research Institute (SERI), South Korea, Visiting Scientist 1992.08-1996.06 School of Computer Science and Engineering, Harbin Institute of Technology, Lecturer

1990.03-1992.08 School of Computer Science and Engineering, Harbin Institute of Technology, Teaching assistant

## **Selected Publications**

#### **Journals**

- 1. **Jiqing Han**, Wen Gao. Robust Telephone Speech Recognition Based on Channel Compensation. *Pattern Recognition*, 1999, 32:1061-1067
- 2. Ziqiang Shi, **Jiqing Han**, Tieran Zheng, Shiwen Deng. Audio Segment Classification Using Online Learning Based Tensor Representation Feature Discrimination. *IEEE Transactions on Audio, Speech, And Language Processing*, 2013, 21(1):184-194
- 3. Ziqiang Shi, **Jiqing Han**, Tieran Zheng, Ji Li. Identification of Objectionable Audio Segments Based on Pseudo and Heterogeneous Mixture Models. *IEEE Transactions on Audio, Speech, And Language Processing*, 2013, 21(3): 611-623
- 4. Shiwen Deng, **Jiqing Han**. Statistical Voice Activity Detection Based on Sparse Representation over Learned Dictionary. *Digital Signal Processing*, 2013, 23(4):1228-1232
- 5. **Jiqing Han**, Wen Gao. Discriminative Environment Feature Extraction for Robust Speech Recognition, *Acoustics Letters*, 2000,23(8):153-157
- 6. **Jiqing Han**, Wen Gao. Robust Speech Recognition Method Based on Discriminative Environment Feature Extraction, *Journal of Computer Science & Technology*, 2001, 16(5):458-464
- 7. He Yongjun, **Han Jiqing**, Gaussian Specific Compensation for Channel Distortion in Speech Recognition, *IEEE Signal Processing Letters*, 2011, 599-602
- 8. Shiwen Deng, **Jiqing Han**. Voice activity detection based on conjugate subspace matching pursuit and likelihood ratio test. *EURASIP Journal on Audio, Speech, and Music Processing*, 2011:12.
- 9. Shiwen Deng, **Jiqing Han**. Likelihood ratio sign test for voice activity detection. *IET Signal Processing*, 2012, 6(4):306-312
- 10. Shi Ziqiang, Gao Boyang, Zheng Tieran, **Han Jiqing**. Study On The Recognition Of Objectionable Audio, *International Journal of Pattern Recognition and Artificial Intelligence*, 2010,24(6):981-994.
- 11. Datao You, **Jiqing Han**, Tieran Zheng, Guibin Zheng, Sparse-Based Auditory Model for Robust Speaker Recognition, *International Journal of Pattern Recognition and Artificial Intelligence*, 2012, 26(7), DOI: 10.1142/S0218001412500152
- 12. Hongquan Sun, **Jiqing Han**. Particle-Based Realistic Simulation of Fluid-Solid Interaction, *Computer Animation and Virtual Worlds*, 2010, 21: 589-595
- 13. Yanqiu Shao, **Jiqing Han**, Ting Liu, Yongzhen Zhao. Automatic conversion from lexical words to prosodic words for mandarin text-to-speech system, *International Journal of Speech Technology*, 2007, 10:45-55
- 14. Ziqiang Shi, **Jiqing Han**, Tieran Zheng. Audio Classification with Low-rank Matrix Representation Features. *ACM Transactions on Intelligent Systems and Technology*, 2014,5(1), DOI: 10.1145/2542182.2542197
- 15. Haiyang Li, Tieran Zheng, Guibin Zheng, **Jiqing Han**. Confidence Measure Based on Context Consistency Using Word Occurrence Probability and Topic Adaptation for Spoken Term Detection, *IEICE Trans. Information and Systems*, 2014, E97-D(3):554-561
- 16. Datao You, Jiqing Han, Guibin Zheng, Tieran Zheng. Sparse Representation with Optimized Learned Dictionary for Robust Voice Activity Detection, *Circuits, Systems & Signal Processing*, 2014, 33(7):2267-2291
- 17. Ziqiang Shi, **Jiqing Han**, Tieran Zheng. Soft Margin Based Low-rank Audio Signal Classification, *Neural Processing Letters*, 2015, 42(2):291-299 (DOI:10.1007/s11063-014-9357-6)
- 18. Yongjun He, **Jiqing Han,** Tieran Zheng, Guanglu Sun. A new framework for robust speech recognition in complex channel environments, *Digital Signal Processing*, 2014, 32(9):109-123 (DOI: 10.1016/j.dsp.2014.06.002)
- 19. Yongjun He, Deyun Chen, Guanglu Sun, **Jiqing Han.** Dictionary evaluation and optimization for sparse coding based speech processing, *Information Sciences*, 2015, 310:77-96 (DOI: 10.1016/j.ins.2015.03.010)
- 20. Yongjun He, Guanglu Sun, **Jiqing Han.** Optimization of Learned Dictionary for Sparse Coding in Speech Processing, *Neurocomputing*, 2015, in press
- 21. Yongjun He, Guanglu Sun, **Jiqing Han.** Spectrum enhancement with sparse coding for robust speech recognition, *Digital Signal Processing*, 2015, 43:59-70
- 22. Shiwen Deng, **Jiqing Han**. Towards heart sound classification without segmentation via autocorrelation feature and diffusion maps, *Future Generation Computer Systems*, 2016, 2 (DOI:

- 10.1016/j.future.2016.01.010), in press
- 23. Wang Wei, Han Jiqing, Zheng Tieran, Zheng Guibin, Zhou Xingyu. Speaker Verification via Modeling Kurtosis Using Sparse Coding. *International Journal of Pattern Recognition and Artificial Intelligence*, 2016, DOI: 10.1142/S0218001416590084, in press

#### **Conference Publications**

- 1. **Jiqing Han**, Munsung Han, Gyu-Bong Park, Jeongue Park, Wen Gao, Doosung Hwang. "Discriminative Learning of Additive Noise and Channel Distortions for Robust Speech Recognition", *IEEE ICASSP98*,81-84
- Jiqing Han, Munsung Han, Gyu-Bong Park, Jeongue Park, Wen Gao. Relative Mel-Frequency Cepstral coefficients Compensation for Robust Telephone Speech Recognition, Eurospeech97, 1531-1534
- 3. Huanliang Wang, Yao Qian, Frank K. Soong, Jianlai Zhou, **Jiqing Han**. A Multi-Space Distributiob (MSD) Approach to Speech Recognition of Tonal Languages, *Interspeech2006*, 125-128
- 4. Zhang Lei, **Jiqing Han**, Chengfa wang. An Environment Model-based Robust Speech Recognition, *ICSLP2000*, Beijing, 2000
- 5. Shiwen Deng, **Jiqing Han**, Voice Activity Detection Based on Complex Exponential Atomic Decomposition and Likelihood Ratio Test. 20<sup>th</sup> International Conference on Pattern Recognition (*ICPR 2010*), Istanbul, Turkey, pp.89-92 August 2010
- 6. Shiwen Deng, **Jiqing Ha**n, Robust Statistical Voice Activity Detection Using a Likelihood Ratio Sign Test. 11<sup>th</sup> Annual Conference of the International Speech Communication Association (*Interspeech 2010*), Makuhari, Japan, September 2010. pp 3126–3129
- 7. Yongjun He, **Jiqing Han**. Model synthesis for band-limited speech recognition. The 11th Annual Conference of the International Speech Communication Association(*Interspeech 2010*). Makuhari, Japan, Sep. 2010, pp558-561.
- 8. You Datao, Jiang Tao, Han Jiqing, Zheng Tieran, A Cochlear Neuron Based Robust Feature for Speaker Recognition, The 36th International Conference on Acoustics, Speech, and Signal Processing (*ICASSP2011*),5440-5443, Prague ,Czech,2011.
- 9. Yongjun He, **Jiqing Han,** Tieran Zheng, Guibin Zheng, Compensation of Partly Reliable Components for Band-Limited Speech Recognition with Missing Data Techniques, The 36th International Conference on Acoustics, Speech, and Signal Processing (*ICASSP2011*),5476-5479, Prague ,Czech,2011
- Shiwen Deng, Jiqing Han, Tieran Zhen, Guibin Zheng. A modified MAP criterion based on hidden Markov model for voice activity detection. In Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP2011), Prague, Czech republic, 2011: 5220-5223
- 11. Haiyang Li, **Jiqing Han,** Tieran Zheng. AUC Optimization Based Confidence Measure for Keyword Spotting. Annual Conference of the International Speech Communication Association (*Interspeech 2011*), Florence, Italy, 2011: 1917-1920.
- 12. Ziqiang Shi, **Jiqing Han**, Tieran Zheng, Real-World Speech/Non-Speech Audio Classification Based on Sparse Representation Features and GPCs, *Interspeech2011*,pp.2401-2404.
- 13. Ziqiang Shi, **Jiqing Han**, Tieran Zheng, A Novel Framework Based on Trace Norm Minimization for Audio Event Detection, *ICONIP 2011*, Part II, LNCS 7063, pp. 646-654. Springer, Heidelberg (2011).
- 14. Yongjun He, **Jiqing Han**, Shiwen Deng, Tieran Zheng and Guibin Zheng. A solution to residual noise in speech denoising with sparse representation, Proceedings of *ICASSP2012*, 4653–4656
- 15. Datao You, **Jiqing Han**, Guibin Zheng, Tieran Zheng, Sparse power spectrum based robust voice activity detector, Proceedings of *ICASSP2012*, 289-292
- 16. Haiyang Li, **Jiqing Han,** Tieran Zheng, Guibin Zheng. A Novel Confidence Measure Based on Context Consistency for Spoken Term Detection. Annual Conference of the International Speech Communication Association. *Interspeech2012*, Portland, September 2012.
- 17. Ziqiang Shi, Tieran Zheng, **Jiqing Han**, Shiwen Deng. Low-rank Audio Signal Classification Under Soft Margin and Trace Norm Constraints. *Interspeech2012*, Portland, September 2012.
- 18. Ziqiang Shi, **Jiqing Han**, Tieran Zheng, Shiwen Deng, Ji Li.Guarantees of Augmented Trace Norm Models in Tensor Recovery, *IJCAI2013*, Beijing, China
- 19. Haiyang Li, **Jiqing Han,** Tieran Zheng, Guibin Zheng. Upper and Lower Bounds for Approximation of the Kullback-Leibler Divergence Between Hidden Markov Models, *ICASSP2013*, Vancouver, Canada
- 20. Tieran Zheng, Jiqing Han, Guibin Zheng, Shiwen Deng. Case Based Reasoning Solution to the

- Problem of Sustained Learning in Keyword Spotting, ICASSP2013, Vancouver, Canada
- 21. Shiwen Deng, **Jiqing Han.** Robust Minimum Statistics Project Coefficients Feature For Acoustic Environment Recognition, *ICASSP2014*, Florence, Italy, 8282-8286
- 22. Lei Zhang, Xiantong Zhen, **Jiqing Han,** Xuezhi Xiang. Learning Semantic Kernels For Scene Classification, *ICASSP2014*, Florence, Italy, 3582-3585
- 23. Yongjun He, Guanglu Sun, Guibin Zheng and **Jiqing Han**. Evaluation of dictionary for sparse coding in speech processing, *Interspeech2014*, Singapore, 2361-2364
- 24. Yongjun He, Chen Chen, **Jiqing Han**. Noise-Robust Speaker Recognition Based on Morphological Component Analysis, *Interspeech2015*, Dresden,
- 25. Lei Zhang, Yangyang Feng, **Jiqing Han**, Xiantong Zhen. Realistic human action recognition: When Deep learning meets VLAD, *ICASSP2016*, Shanghai, China, in press
- 26. Lei Zhang, Xiantong Zhen, **Jiqing Han**. Towards optimal VLAD for Human Action Recognition from Still Images, *ICASSP2016*, Shanghai, China, in press

## 论文专著

### 国际刊物

- 1. **Jiqing Han**, Wen Gao. Robust Telephone Speech Recognition Based on Channel Compensation. *Pattern Recognition*, 1999, 32:1061-1067
- 2. Ziqiang Shi, **Jiqing Han**, Tieran Zheng, Shiwen Deng. Audio Segment Classification Using Online Learning Based Tensor Representation Feature Discrimination. *IEEE Transactions on Audio, Speech, And Language Processing*, 2013, 21(1):184-194
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- 10. Shi Ziqiang, Gao Boyang, Zheng Tieran, **Han Jiqing**. Study On The Recognition Of Objectionable Audio, *International Journal of Pattern Recognition and Artificial Intelligence*, 2010,24(6):981-994.
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- 16. Datao You, **Jiqing Han,** Guibin Zheng, Tieran Zheng. Sparse Representation with Optimized Learned Dictionary for Robust Voice Activity Detection, *Circuits, Systems & Signal Processing*, 2014, 33(7):2267-2291
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- 18. Yongjun He, **Jiqing Han,** Tieran Zheng, Guanglu Sun. A new framework for robust speech recognition in complex channel environments, *Digital Signal Processing*, 2014, 32(9):109-123 (DOI: 10.1016/j.dsp.2014.06.002)
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- 21. Yongjun He, Guanglu Suna, **Jiqing Han.** Spectrum enhancement with sparse coding for robust speech recognition, *Digital Signal Processing*, 2015, in press

### 国际重要会议

- 1. **Jiqing Han**, Munsung Han, Gyu-Bong Park, Jeongue Park, Wen Gao, Doosung Hwang. "Discriminative Learning of Additive Noise and Channel Distortions for Robust Speech Recognition", *IEEE ICASSP98*,81-84
- 2. **Jiqing Han**, Munsung Han, Gyu-Bong Park, Jeongue Park, Wen Gao. Relative Mel-Frequency Cepstral coefficients Compensation for Robust Telephone Speech Recognition, *Eurospeech97*, 1531-1534
- 3. Huanliang Wang, Yao Qian, Frank K. Soong, Jianlai Zhou, **Jiqing Han**. A Multi-Space Distributiob (MSD) Approach to Speech Recognition of Tonal Languages, *Interspeech2006*, 125-128
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- 5. Shiwen Deng, **Jiqing Han**, Voice Activity Detection Based on Complex Exponential Atomic Decomposition and Likelihood Ratio Test. 20<sup>th</sup> International Conference on Pattern Recognition (*ICPR 2010*), Istanbul, Turkey, pp.89-92 August 2010
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- 14. Yongjun He, **Jiqing Han**, Shiwen Deng, Tieran Zheng and Guibin Zheng. A solution to residual noise in speech denoising with sparse representation, Proceedings of *ICASSP2012*, 4653–4656
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- 21. Shiwen Deng, **Jiqing Han.** Robust Minimum Statistics Project Coefficients Feature For Acoustic Environment Recognition, *ICASSP2014*, Florence, Italy, 8282-8286
- 22. Lei Zhang, Xiantong Zhen, **Jiqing Han,** Xuezhi Xiang. Learning Semantic Kernels For Scene Classification, *ICASSP2014*, Florence, Italy, 3582-3585

- 23. Yongjun He, Guanglu Sun, Guibin Zheng and **Jiqing Han**. Evaluation of dictionary for sparse coding in speech processing, *Interspeech2014*, Singapore, 2361-2364
- 24. Yongjun He, Chen Chen, **Jiqing Han**. Noise-Robust Speaker Recognition Based on Morphological Component Analysis, *Interspeech2015*, Dresden, in press

## 国内重要刊物

(以学报为主,整理一下。再确认)

中文部分每篇单独一行,或整体是一个栏目。