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Publications in Book Chapters, International Journals and Conference Proceedings :

A. Book Chapters

1. Houwei Cao, Tan Lee, **P.C. Ching**, "Development of the Chinese-English Code-mixing Speech Corpora", Computer Processing of Asian Languages, ed. by Shuichi Itahashi and C.Y. Tseng, 1st ed. pp. 204-207, Japan Consideration Books, March 2010
2. Nengheng Zheng, C. Qin, Tan Lee, **P.C. Ching**, "A Dual Condition Cantonese Speech Database for Speaker Recognition", Computer Processing of Asian Languages, ed. by Shuichi Itahashi and C.Y. Tseng, 1st ed. pp. 90-93, Japan Consideration Books, March 2010
3. **P.C. Ching**, Tan Lee, W.K. Lo, Helen Meng, "Cantonese Speech Recognition and Synthesis", Advances in Chinese Spoken Language Processing, ed. by C.H. Lee, H. Li, L.S. Lee, R. Wang, and Q. Huo, pp. 365-386, Singapore: Springer-Verlag, December 2006

B. Refereed Journal Publications

1. R. Cai, W. Zhang, and **P.C. Ching**, "Cost-Efficient Optimization of Base Station Densities for Multi-tier Heterogeneous Cellular Networks," IEEE Transactions on Wireless Communications, vol. 15, no. 3, pp. 2381-2393, March 2016.
2. Ran Cai, Jian-Kang Zhang, T.N. Davidson, W. Zhang, K.M. Wong and **P.C. Ching**, "A power allocation strategy for multiple Poisson spectrum sharing networks," IEEE Transactions on Wireless Communications, Vol. 14, No. 4, pp.1785-1799, April 2015
3. Yun Liu, W. Zhang, S.C. Liew and **P.C. Ching**, "Bounded Delay-Tolerant Space-Time Codes For Distributed Antenna Systems," IEEE Transactions on Wireless Communications, Vol. 13, No. 8, pp.4644-4655, August 2014
4. C. Zhai, W. Zhang, and **P.C. Ching**, "Cooperative Spectrum Sharing Based on Two-Path Successive Relaying," IEEE Transactions on Communications, Vol. 61, No. 6, pp.2260-2270, June 2013
5. Y. Yang, Q. Li, Wing-Kin Ma, J.-H. Ge, and **P.C. Ching**, "Cooperative Secure Beamforming for AF Relay Networks With Multiple Eavesdroppers", IEEE Signal Process. Lett., vol. 20, no. 1, pp.35-39, Jan. 2013.
6. Ye Yang, Tsung-Hui Chang, Wing-Kin Ma, Jianhua Ge, Chong-Yung Chi, **P.C. Ching**, "Noncoherent Bit-Interleaved Coded OSTBC-OFDM with Maximum Spatial-Frequency Diversity", IEEE Transactions on Wireless Communications, Vol. 11, No. 9, September 2012, pp 3335-3347
7. Feng Tian, Wei Zhang, Wing-Kin Ma, **P.C. Ching**, Vincent H. Poor, "An Effective Distributed Space-time Code for Two-path Successive Relay Network", IEEE Transactions on Communications, Volume 59, No. 8, August 2011, pp 2254-2263
8. Ning Wang, **P.C. Ching**, Nengheng Zheng, Tan Lee, "Robust Speaker Recognition Using Denoised Vocal Source and Vocal Tract Features", IEEE Trans. On Audio, Speech and Language Processing, Volume 19, No. 1, January 2011, pp196-205
9. Feng Tian, Xiang-Gen Xia, Wing-Kin Ma, **P.C. Ching**, "On the full diversity property of a space-frequency code family with multiple carrier offsets in cooperative communication systems", Journal of Communications, Volume 5, No. 4, April 2010, pp 317-331

10. Y.C. Joyce Chan, Houwei Cao, **P.C. Ching**, Tan Lee, "Automatic recognition of Cantonese-English code-mixing speech", *International Journal of Computational Linguistics and Chinese Language Processing*, Volume 14, No. 3, September 2009, pp281-304
11. Feng Tian, Xiang-Gen Xia, **P.C. Ching**, Wing-Kin Ma, "Signal Detection in a Space-Frequency Coded Cooperative Communication System with Multiple Carrier Frequency Offsets by Exploiting Specific Properties of the Code Structure", *IEEE Transactions on Vehicular Technology*, Volume 58, No. 7, September 2009, pp 3396-3409
12. Wei Zhang, Yabo Li, Xiang-Gen Xia, **P.C. Ching**, Khaled Ben Letaief, "Distributed Space-Frequency Coding for Cooperative Diversity in Broadband Wireless Ad Hoc Networks", *IEEE Transactions on Wireless Communications*, Volume 7, Issue 3, March 2008, pp. 995-1003
13. Nengheng Zheng, Tan Lee, Ning Wang, **P.C. Ching**, "Integrating Complementary Features from Vocal Source and Vocal Tract for Speaker Identification", *International Journal of Computational Linguistics & Chinese Language Processing*, Volume 12, No. 3, September 2007, pp. 273-290
14. Wei Zhang, Xiang-Gen Xia, **Ching, P.C.**, "Full-Diversity and Fast ML Decoding Properties of General Orthogonal Space-Time Block Codes for MIMO-OFDM Systems", *IEEE Transactions on Wireless Communications*, Volume 6, Issue 5, May 2007, pp. 647-653
15. Nengheng Zheng; Tan Lee, **P.C. Ching**, "Integration of Complementary Acoustic Features for Speaker Recognition", *IEEE Signal Processing Letters*, Volume 14, Issue 3, March 2007, pp. 181-184
16. Shan Ouyang, Tan Lee, **P.C. Ching**, "A power-based adaptive method for eigenanalysis without square-root operations", *Digital Signal Processing*, Volume 17, Issue 1, January 2007, pp. 209-224
17. Zhang, W., Xia, X.G., **Ching, P. C.**, "High-Rate Full-Diversity Space-Time-Frequency Codes for Broadband MIMO Block-Fading Channels", *IEEE Transactions on Communications*, Volume 55, Issue 1, Jan. 2007, pp. 25-34
18. Wei Zhang; Xiang-Gen Xia; **P.C. Ching**, "Clustered pilot tones for carrier frequency offset estimation in OFDM systems", *IEEE Transactions on Wireless Communications*, Volume 6, Issue 1, Jan. 2007, pp 101-109
19. Zhang, W., Xia, X. G., **Ching, P. C.**, "Optimal Training and Pilot Pattern Design for OFDM Systems in Rayleigh Fading", *IEEE Transactions on Broadcasting*, Volume 52, Issue 4, Dec. 2006, pp. 505-514
20. Meng Yuan, Tan Lee, **P.C. Ching**, Yu Zhu, "Speech recognition on DSP: issues on computational efficiency and performance analysis", *Microprocessors and Microsystems*. Vol. 30, Issue 3, May 2006, pp 155-164
21. Yiu-Tong Chan, Herman Yau, **P.C. Ching**, "Exact and Approximate Maximum Likelihood Localization Algorithms", *IEEE Trans. on Vehicular Technology*, Vol. 55, No. 1, Jan. 2006, pp 10-16
22. Yiu-Tong Chan, Wing-Yue Tsui, Hing-Cheung So, **P.C. Ching**, "Time-of-Arrival Based Localization under NLOS Conditions", *IEEE Trans. on Vehicular Technology*, Vol. 55, No. 1, Jan. 2006, pp 17-24
23. Hong Zhang, Xiang-Gen Xia, Leonard Cimini, Jr., **P.C. Ching**, "Synchronization Techniques and Guard-Band Configuration Scheme for Single-Antenna Vector-OFDM Systems", *IEEE Trans. on Wireless Communications*, Vol. 4, No. 5, September 2005, pp 2454-2464

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25. H.C. So, **P.C. Ching**, "Adaptive algorithm for direct frequency estimation", *IEE Proceedings – Radar, Sonar and Navigation*, Vol. 151, No. 6, December 2004, pp. 359-364
26. W.K. Ma, **P.C. Ching**, Zhi Ding, "Semidefinite Relaxation Based Multiuser Detection for M-ary PSK Multiuser Systems", *IEEE Trans. on Signal Processing*, Vol. 52, No.10, October 2004, pp. 2862-2872
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30. Y. Wu, H.C. So, **P.C. Ching**, "Joint Time Delay and Frequency Estimation via State-Space Realization", *IEEE Signal Processing Letters*, Vol. 10, No. 11, November 2003, pp 339-342
31. W.K. Ma, **P.C. Ching**, "Asymptotic Minimum Bit Error Rate Property of Maximum-Likelihood Multiuser Detection", *IEEE Communications Letters*, Vol. 7, No. 9, September 2003, pp. 425-427
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C. Refereed Conference Papers

1. M. W. Un, W.-K. Ma, **P.C. Ching**, "Joint transmit beamforming optimization and uplink/downlink user selection in a full-duplex multi-user MIMO system," in Proc. IEEE ICASSP 2017, New Orleans, USA, pp. 3639-3643, March 4-9, 2017.
2. T. Zhang, **P.C. Ching**, "Interference alignment on MIMO X channel with synergistic CSIT," in Proc. IEEE ICASSP 2017, New Orleans, USA, pp. 3754-3758, March 4-9, 2017.
3. R. Cai, Y. Liu and **P.C. Ching**, "Transmission code design in asynchronous full-duplex relay systems," in Proc. CIST Ottawa 2016, Canada, May 2016.
4. Chun Hoy Wong, Tan Lee, Yu Ting Yeung, **P.C. Ching**, "Modeling temporal dependency for robust estimation of LP model parameters in speech enhancement," in Proc. Interspeech 2015, Dresden, Germany, September 6-10, 2015.

5. Yun Liu, W. Zhang and **P.C. Ching**, "Time-Reversal Space-Time Codes in Asynchronous Two-Way Double-Antenna Relay Networks," in Proc. ICASSP 2015, Brisbane, Australia, April 19-24, 2015, pp. 3118-3122
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8. Lu Yang, W. Zhang, N.H. Zheng and **P.C. Ching**, "Opportunistic user Scheduling in MIMO Cognitive radio networks," in Proc. ICASSP 2014, Vancouver, Canada, May 4-9, 2014, pp. 7353-7357
9. Ran Cai, W. Zhang, **P.C. Ching**, Timothy N. Davidson and Jian-Kang Zhang, "Performance of partial zero-forcing beamforming in large random spectrum sharing networks," in Proc. ICASSP 2014, Vancouver, Canada, May 4-9, 2014, pp. 7039-7043
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14. Y. Yang, T.-H. Chang, J.-H. Ge, Wing-Kin Ma and **P.C. Ching**, "Achieving full cooperative and frequency diversity in bit-interleaved coed two-way relay networks," in Proc. IEEE WCNC, Shanghai, China, April 7-10, 2013, pp. 3283-3288
15. N. Wang, **P.C. Ching** and Tan Lee, "Exploration of phase and vocal excitation modulation features for speaker recognition," in Proceedings of the 7th Chinese Conference on Biometric Recognition (CCBR 2012), Guangzhou, China, Dec, 2012, pp. 251-259
16. C. Zhai, W. Zhang and **P.C. Ching**, "Spectrum leasing based on bandwidth efficient relaying in cognitive radio networks," in Proc. IEEE Global Communications Conference (GLOBECOM 2012), Anaheim, California, USA, Dec 3-7, 2012, pp. 4927 – 4932
17. Ran Cai, Wei Zhang, **P.C. Ching**, "Spectrum Sharing between Random Geometric Networks", ICASSP 2012 – IEEE International Conference on Acoustics, Speech, and Signal Processing , March 25-30, 2012, Kyoto, Japan, pp. 3137-3140
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21. Feng Tian, Wei Zhang, W.K. Ma and **P.C. Ching**, “Distributed Space-Time Coding for Two-Path Successive Relaying”, IEEE Global Communication Conference 2010, Dec. 6-10, 2010, Miami, Florida, USA.
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24. Ning Wang, **P.C. Ching**, and Tan Lee, "Robust Speaker Verification Using Phase Information of Speech", Proc. International Symposium on Chinese Spoken Language Processing (ISCSLP) 2010, Nov. 29–Dec. 3, 2010, Tainan & Sun Moon Lack, Taiwan, pp. 483-487.
25. Houwei Cao, **P.C. Ching**, Tan Lee, and Yu Ting Yeung, "Semantics-based Language Modeling for Cantonese-English Code-mixing Speech Recognition", Proc. International Symposium on Chinese Spoken Language Processing (ISCSLP) 2010, Nov. 29–Dec. 3, 2010, Tainan & Sun Moon Lack, Taiwan, pp. 246-250.
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