

# Lang Tong

School of Electrical and Computer Engineering,  
384 Frank H.T. Rhodes Hall  
Cornell University, Ithaca, NY 14853  
Email: ltong@ece.cornell.edu  
Tel: 607-255-3900, Fax: 607-255-9072

## Education

---

**Post-Doctor** Stanford University, 1991.  
**Ph.D. (EE)** University of Notre Dame, Notre Dame, IN, 1990.  
**M.S.E.E.** University of Notre Dame, Notre Dame, IN, 1988.  
**B.S. (EE)** Dept. Automation, Tsinghua University, Beijing, China, 1985.

## Employment

---

**2006–** Irwin and Joan Jacobs Professor in Engineering  
**1998–** Associate Professor, Professor, Cornell University  
**1993–1997** Assistant, Associate Professor, University of Connecticut  
**1991–1993** Assistant Professor, West Virginia University  
**2001** Cor Wit Professor, Delft University of Technology.  
**1992 Summer** Visiting Assistant Professor, Stanford University

## Honors and Awards

---

Fellow, IEEE, 2005.  
2004 IEEE Signal Processing Society Best Paper Award (with Min Dong).  
2004 Leonard G. Abraham Prize Paper Award, IEEE Communications Society (with P. Venkitasubramaniam and S. Adireddy).  
1993 IEEE Circuits and Systems Society Outstanding Young Author Award.  
ONR Young Investigator Award, 1996.  
Co-author of five student paper awards:

- 2000 IEEE Signal Processing Society Young Author Best Paper Award (Q. Zhao).
- 2005 ICASSP Student Paper Award (Y. Sung).
- 2005 ICASSP Student Paper Award (T. He).
- 2006 ICASSP Student Paper Award (A. Anandkumar).
- 2006 ICASSP Student Paper Award (P. Venkitasubramaniam).

## Research and Teaching Interests

---

Communication systems and wireless networks. Information theory.  
Statistical signal processing, Detection and estimation. Signal processing algorithms.  
Wireless systems: Cellular, PCS, High Frequency, HDTV.  
Security, Privacy, and Anonymity of networking.

## Professional Activities

---

- Associate Editor, *IEEE Transactions on Information Theory*, 2006-present.
- Associate Editor, *IEEE Transactions on Signal Processing*, 1998-2000, 2004-2006.
- Associate Editor, *IEEE Signal Processing Letters*, 2003-2005.
- Co-Guest Editor, Special Issue on Signal Processing for Networking, *IEEE Signal Processing Magazine*, 2004.
- Co-Guest Editor, Special Issue on Cross Layer Design for Communications and Signal Processing Systems, *EURASIP Journal on Applied Signal Processing*, 2004.
- Co-Guest Editor, Special Issue on Ad Hoc Networks: Cross-Layer Issues, *EURASIP Journal on Wireless Communications and Networking*, 2004.
- Co-Guest Editor, Special Issue in Blind Identification and Estimation, *IEEE Proceedings*, 1998.
- Plenary Speaker, *2005 IEEE Intl. Conf. Acoust. Speech Signal Processing (ICASSP'05)*, *IEEE CAS Symposium on Frontiers in Wireless Communications, 2004*, *IEEE SPAWC03*, and *IEEE Workshop on Wireless Communications, Circuits and Systems 1998*.
- Technical Program Co-Chair, *2004 IEEE CAS Symposium on Frontiers of Wireless Communications*, June, 2004.
- Technical Program Co-chair, *IEEE CAS Workshop on Wireless Communications and Networking*, Aug., 2001.
- Co-chair/organizer of the *1st IEEE Workshop on Signal Proc. Advances in Wireless Comm.*, 1997
- Co-chair of ONR/ARL Workshop on Sensor Networks: Theory and Military Applications, 2003.
- Co-chair of the NSF/ONR/ARL Workshop on Future Challenges of Signal Processing and Communications in Wireless Networks, 2002.
- Co-chair/organizer of the NSF/ONR Workshop on “Cross-Layer Design in Adaptive Ad Hoc Networks: From Signal Processing to Global Networking”, 2001.

## Sponsored Research

---

- Total funding approximately 10M since 1993 from NSF, ARO, ARL, ONR, NRL, DARPA, Lockheed, Phillips, etc.

## Patents

---

- [1] S. Adireddy and L. Tong, “Dual equalizer for use in an receiver and method of operation,” US Patent No. 6,754,294, June, 2004.
- [2] S. Adireddy and L. Tong, “System and methods for precursor cancellation of intersymbol interference in a receiver,” US Patent No. 6,912,250, June, 2005.
- [3] S. Adireddy and L. Tong, “System and methods for optimal distribution of symbols in a fixed size data packet to improve receiver performance,” US Patent No. 7,079,586, July, 2006.

## Publications: Journals (To appear or appeared)

- [1] Q. Zhao, S. Geirhofer, L. Tong, and B. M. Sadler, "Opportunistic Spectrum Access via Periodic Channel Sensing," appear in *IEEE Transactions on Signal Processing*, 2008.
- [2] A. Anandkumar and L. Tong, "Type-Based Random Access for Distributed Detection over Multiaccess Fading Channels," to appear *IEEE Transactions on Signal Processing*, 2007
- [3] Y. Sung, X. Zhang, L. Tong, and H. V. Poor, "Sensor configuration and activation for field detection in large sensor arrays," to appear in *IEEE Transactions on Signal Processing*, 2008
- [4] Z. Yang and L. Tong, "On the error exponent and the use of LDPC codes for cooperative sensor networks with misinformed nodes," to appear in *IEEE Transactions on Information Theory*, 2008.
- [5] Q. Zhao, L. Tong, and D. Council, "Energy-Aware Adaptive Routing for Large-Scale Ad Hoc Networks: Protocol and Performance Analysis," *IEEE Transactions on Mobile Computing*, vol. 7, no. 9, pp. 1048-1059, Sept. 2007.
- [6] M. Dong, L. Tong, and B. Sadler, "Information retrieval and processing in sensor networks: Deterministic scheduling vs. random access," to appear in *IEEE Transactions on Signal Processing*, 2008
- [7] P. Venkitasubramaniam and L. Tong, and A. Swami, "Quantization for maximin ARE in distributed estimation," *IEEE Transactions on Signal Processing*, vol. 55, no. 7, pp. 3596–3605, JULY, 2007
- [8] T. He and L. Tong, "Detecting encrypted stepping-stone connections," *IEEE Transactions on Signal Processing*, vol 55., no. 5, pp. 1612–1623, May 2007.
- [9] S. Geirhofer, L. Tong, and B. M. Sadler, "Dynamic Spectrum Access in the Time Domain: Modeling and Exploiting Whitespace," *IEEE Communications Magazine*, May, 2007.
- [10] G. Mergen and L. Tong, "Maximum asymptotic stable throughput of opportunistic slotted ALOHA and applications to CDMA networks," *IEEE Transactions on Wireless Communications*, vol 6., no. 4, pp. 1159–1163, April, 2007.
- [11] Q. Zhao, L. Tong, A. Swami, and Y. Chen, "Decentralized cognitive MAC for opportunistic spectrum access in ad hoc networks: A POMDP framework," *IEEE Journal on Selected Areas in Communications: Special Issue on Adaptive, Spectrum Agile and Cognitive Wireless Networks*, April, 2007.
- [12] G. Mergen, V. Naware and L. Tong, "Asymptotic Detection Performance of Type-Based Multiple Access Over Multiaccess Fading Channels," to appear in *IEEE Transactions on Signal Processing*, vol. 55, no. 3, pp. 1081-1092, March, 2007
- [13] G. Mergen, V. Naware and L. Tong, "Asymptotic detection performance of type-based multiple access over multiaccess fading channels," *IEEE Transactions on Signal Processing*, vol. 55, no. 3, pp. 1081-1092, March, 2007
- [14] Y. Sung, S. Misra, L. Tong, and A. Ephremides, "Cooperative routing for signal detection in large sensor networks," to appear in *IEEE JSAC Special Issue on Cooperative Communications and Networking*, vol. 25, no. 2, pp. 471–483, Feb. 2007.
- [15] Q. Zhao and L. Tong, "Energy-efficient information retrieval for correlated source reconstruction in sensor networks," to appear in *IEEE Transactions on Wireless Communications*, vol 6, no. 1, pp. 157-165, Jan., 2007.
- [16] S. Misra, A. Swami, and L. Tong, "Optimal Training for Time-Selective Wireless Fading Channels using Cutoff Rate," *EURASIP Journal on Applied Signal Processing: Special Issue on Reliable Communications over Rapidly Time-Varying Channels*, vol. 2006, pp. 1-15, December, 2006.
- [17] S. Geirhofer, L. Tong, and B. M. Sadler, "Moment estimation and dithered quantization," *IEEE Signal Processing Letters*, vol. 13, no. 12, pp. 752-755, Dec. 2006.

- [18] M. Dong, L. Tong, and B.M. Sadler, "Impact of data retrieval pattern on homogeneous signal field reconstruction in dense sensor networks," *IEEE Transactions on Signal Processing*, vol. 54, no. 11, pp 4352–4364, Nov., 2006.
- [19] S. Marano, V. Matta, P. Willett, and L. Tong, "Cross-layer design of sequential detectors in sensor networks," *IEEE Transactions on Signal Processing*, vol. 54, no. 11, pp 4105–4117, Nov., 2006.
- [20] G. Mergen, Q. Zhao, and L. Tong, "Sensor networks with mobile access: energy and capacity considerations," *IEEE Transactions on Communications*, vol. 54, no. 11, pp 2033-2044, Nov., 2006.
- [21] S. Misra, A. Swami, and L. Tong, "Cutoff Rate Optimal Binary Inputs with Imperfect CSI," *IEEE Transactions on Wireless Communications*, vol. 5, no. 10, pp. 2903-2913, Oct., 2006.
- [22] S. Misra, A. Swami, and L. Tong, "Optimal Training for Time-Selective Wireless Fading Channels using Cutoff Rate," to appear in *EURASIP Journal on Applied Signal Processing: Special Issue on Reliable Communications over Rapidly Time-Varying Channels*, 2006.
- [23] Y. Sung, S. Misra, L. Tong, and A. Ephremides, "Signal processing for application-specific ad hoc networks," to appear in *IEEE Signal Processing Magazine: Special Issue on Signal Processing for Wireless Ad hoc Communication Networks*, vol. 23, no. 5, pp. 74 - 83, September, 2006.
- [24] Z. Hu, J. Zhang, and L. Tong, "Adaptive Sensor Activity Control in Many-to-One Sensor Networks," *IEEE J. Select. Areas. Commun.*, vol. 24, no. 8, pp. 1525-1534, August, 2006.
- [25] Z. Yang and L. Tong, "Multiplexing two information sources over fading channels: A cross-layer design perspective," *Signal Processing*, vol. 86, no. 8, pp. 1920-1932, August, 2006.
- [26] Q. Zhao, A. Swami, and L. Tong "The interplay between signal processing and networking in sensor networks," *IEEE Signal Processing Magazine: Special Issue on Distributed Signal Processing in Sensor Networks*, vol. 23, no. 4, pp. 84-93, July, 2006.
- [27] B. Chen, L. Tong, and P. Varshney, "Channel-aware distributed detection in wireless sensor networks," *IEEE Signal Processing Magazine: Special Issue on Distributed Signal Processing in Sensor Networks*, vol. 23, no. 4, pp. 16-26, July, 2006.
- [28] C. Budianu, S. Ben-David and L. Tong, "Estimation of Number of Operating Sensors in Large-Scale Sensor Networks with Mobile Access," *IEEE Transactions on Signal Processing*, vol. 54, no. 5, pp. 1703-1715, May, 2006.
- [29] S. Marano, V. Matta, P. Willett, L. Tong, "Support-Based and ML approaches to DOA Estimation in a Dumb Sensor Network," *IEEE Trans. on Signal Processing*, vol. 54, no. 4, pp. 1563-1567, April 2006.
- [30] T. He, S. Ben-David and L. Tong, "Nonparametric Change Detection and Estimation in Large Scale Sensor Networks," *IEEE Trans. on Signal Processing*, vol. 54, no. 4, pp. 1204 - 1217, April, 2006.
- [31] Y. Sung, L. Tong, and H. V. Poor, "Neyman-Pearson detection of Gauss-Markov signals in noise: Closed-form error exponent and properties," *IEEE Trans. on Information Theory*, vol. 52, no. 4, April, 2006.
- [32] G. Mergen and L. Tong, "Type based estimation over multiaccess channels," *IEEE Transactions on Signal Processing*, vol. 54, no. 2, pp. 613–626, February, 2006.
- [33] Z. Yang and L. Tong, "Cooperative sensor networks with misinformed nodes," *IEEE Transactions on Information Theory*, Vol. 51, No. 12, pp. 4118-4133, Dec. 2005.
- [34] P. Venkatasubramaniam, S. Adireddy and L. Tong, "Sensitivity and Coding of Opportunistic ALOHA for Sensor Networks with Mobile Access," *Journal of VLSI Signal Processing*, Vol. 41, No. 3, pp. 329-344, Nov. 2005
- [35] S. Marano, V. Matta, P. Willett, and L. Tong, "DOA Estimation via a Network of Dumb Sensors Under the SENMA Paradigm," *IEEE Signal Processing Letters*, Volume 12, Issue 10, October, 2005.

- [36] Z. Yang, M. Dong, L. Tong, and B. M. Sadler "MAC protocols for optimal information retrieval pattern in sensor networks with mobile access," *EURASIP Journal on Wireless Communications and Networking*, vol. 2005, no. 4, pp. 493-504, Sept. 2005.
- [37] S. Adireddy and L. Tong, "Optimal Placement of Known Symbols for Slowly Varying Frequency Selective Channels," *IEEE Transactions on Wireless Communications*, vol. 4, no. 4, July, 2005.
- [38] V. Naware, G. Mergen and L. Tong, "Stability and Delay of Finite User Slotted ALOHA with Multipacket Reception," *IEEE Transactions on Information Theory*, vol. 51, no. 7, pp. 2636-2656, July 2005.
- [39] G. Mergen and L. Tong "Stability and Capacity of Wireless Networks with Probabilistic Reception" *IEEE Transactions on Information Theory*, June, 2005.
- [40] Y. Sung, L. Tong, and A. Swami, "Asymptotic Locally Optimal Detector for Large Scale Sensor Network under the Poisson Regime" *IEEE Transactions on Signal Processing*, June, 2005
- [41] A. Leshem and L. Tong, "Estimating Sensor Population via Probabilistic Sequential Polling," *IEEE Signal Processing Letters*, vol 12, no. 5, pp. 395-398, May, 2005.
- [42] Q. Zhao and L. Tong, "Opportunistic Carrier Sensing for Energy Efficient Information Retrieval in Sensor Networks," *EURASIP Journal on Wireless Communications and Networking: Special Issue on Advanced Signal Processing Algorithms for Wireless Communications*, May 2005.
- [43] Q. Zhao and L. Tong, "Energy Efficiency of Large-Scale Wireless Networks: Proactive vs. Reactive Networking," *IEEE Journal on Selected Areas in Communications: Special Issue on Advances in Military Wireless Communications*, May 2005.
- [44] S. Adireddy and L. Tong "Exploiting Decentralized Channel State Information for Random Access" *IEEE Transactions on Information Theory*, Feb., 2005.
- [45] R. Djapic, A. van der Veen and L. Tong "Synchronization and Packet Separation in Wireless Ad hoc Networks by Known Modulus Algorithms" *Journal on Selected Areas in Communications*, Feb., 2005.
- [46] Y. Sung, L. Tong, and A. Swami, "Blind Channel Estimation for Space-Time Coded WCDMA", *EURASIP Journal on Wireless Communications and Networking*, vol. 2004, no. 2, pp. 322-334, Dec., 2004.
- [47] A. Butala and L. Tong, "Cross Layer Design for Medium Access Control in CDMA Ad-hoc Networks" *EURASIP J. on Applied Signal Processing*, December, 2004.
- [48] P. Venkatasubramanian, S. Adireddy and L. Tong, "Sensor Networks with Mobile Access: Optimal Random Access and Coding," *IEEE Journal on Selected Areas in Communications: Special Issue on Sensor Networks*, vol. 22, no. 6, pp 1058-1068, August, 2004.
- [49] L. Tong, B.M. Sadler, and M. Dong, "Pilot Assisted Wireless Transmissions," *IEEE Signal Processing Magazine*, November 2004.
- [50] Q. Zhao and L. Tong "A Dynamic Queue Protocol for Multiaccess Wireless Networks with Multipacket Reception" *IEEE Trans. Wireless Comm.*, Vol. 3, No. 6, November 2004.
- [51] C. Budianu and L. Tong "Channel Estimation under Asynchronous Packet Interference," *IEEE Transactions on Signal Processing*, Oct., 2004
- [52] L. Tong, V. Naware and P. Venkatasubramanian, "Signal Processing in Random Access," *IEEE Signal Processing Magazine*, Special issue on Signal processing for networking: An integrated approach, vol. 21, no. 5, Sept, 2004.
- [53] Y. Sung and L. Tong, "Tracking of Fast-Fading Channels in Long Code WCDMA" *IEEE Transactions on Signal Processing*, vol. 52, no. 3, pp. 786-795, March 2004.
- [54] M. Dong, L. Tong, and Brian M. Sadler, "Optimal Insertion of Pilot Symbols for Transmissions over Time-Varying Flat Fading Channels," *IEEE Transactions on Signal Processing*, vol. 52, no. 2., pp. 1403-1418, May 2004.

- [55] A. Maharshi and L. Tong and A. Swami, "Cross-layer Designs of Multichannel Reservation MAC under Rayleigh Fading," *IEEE Transactions on Signal Processing*, vol. 51, no. 8, pp 2054-2067, August, 2003.
- [56] L. Tong, A. Van der Veen, P. Dewilde, and Y. Sung, "Blind Decorrelating RAKE Receiver for Long Code WCDMA," *IEEE Trans. on Signal Processing*, vol.51, no.6, pp.1642-1655, 2003.
- [57] M. Dong, S. Adireddy and L. Tong, "Optimal Pilot Placement for Semi-Blind Channel Tracking of Packetized Transmission over Time-Varying Channels," invited paper to appear in *IEICE Trans. on Communications*, Vol.E86-A No.3 pp.550-563, March, 2003.
- [58] Q. Zhao and L. Tong, "A Multi-Queue Service Room MAC Protocol for Wireless Networks with Multipacket Reception" *IEEE/ACM Transactions on Networking*, vol. 11, no. 1, pp. 125-137, Feb, 2003.
- [59] M. Dong and L. Tong, "Optimal Design and Placement of Pilot Symbols for Channel Estimation" *IEEE Trans. on Signal Processing*, vol. 50, no. 12, pp. 3055-3069, 2002.
- [60] Q. Bao and L. Tong, "A Performance Comparison Between Ad Hoc and Centrally Controlled CDMA Wireless LANs" *IEEE Transactions on Wireless Communications*, IEEE Transactions on Wireless Communications Volume: 1 Issue: 4 , Oct 2002, Page(s): 829 -841.
- [61] C. Budianu and L. Tong, "Channel Estimation for Space-Time Orthogonal Block Codes," *IEEE Trans. on Signal Processing*, Oct., 2002.
- [62] S.Adireddy, L.Tong and H.Viswanathan, "Optimal Placement of Known Symbols for Frequency-Selective Block Fading Channels", *IEEE Trans. Info. Theory*, Vol. 48, No. 8, August 2002.
- [63] P. Hande, L. Tong and A. Swami, "Multipath Delay Estimation for Frequency Hopping Systems" *J. VLSI Signal Processing*, vol. 30, pp 163-178, Jan. 2002.
- [64] X. Yu and L. Tong, "Joint Channel and Symbol Estimation by Oblique Projections" *IEEE Trans. on Signal Processing*, vol. 49, no. 12, pp. 3074-3083, Dec. 2001.
- [65] L. Tong, Q. Zhao and G. Mergen, "Multipacket Reception in Random Access Wireless Networks: From Signal Processing to Optimal Medium Access Control" *IEEE Communication Magazine*, vol. 39, no. 11, pp 108 -112, Nov., 2001.
- [66] P. Schiniter and L. Tong, "Existence and Performance of SW Estimators" *IEEE Trans. Signal Processing*, vol. 49, no. 9, pp 2031-2041, Sept., 2001.
- [67] B. Chen and L. Tong, "Traffic Aided Multiuser Detection for Packet Switching Random Access/DCMA Networks" *IEEE Trans. Signal Processing*, vol. 49, no. 7, pp 1570-1580, July, 2001.
- [68] M. Gu and L. Tong, "Domains of Attraction of Shalvi-Weinstein Receivers" *IEEE Trans. Signal Processing*, vol. 49, no. 7, pp 1397-1408, July, 2001.
- [69] P. Hande and L. Tong, "Signal Parameter Estimation via the Cayley-Hamilton Constraint" *IEEE Signal Processing Letters*, vol. 8, no. 4, pp. 110-113, April, 2001.
- [70] Q. Zhao and L. Tong, "Semi-Blind Collision Resolution in Random Access Wireless Ad Hoc Networks", *IEEE Transactions on Signal Processing*, vol. 48, no. 9, pp. 2910-2920, Oct., 2000.
- [71] P. Hande, A. Swami and L. Tong, "Flat Fading Approximation Error" *IEEE Communications Letters*, vol. 4, no. 10, pp. 310-311, Oct. 2000.
- [72] J.K. Tugnait, L. Tong and Z. Ding, "Single-User Channel Estimation and Equalization", *IEEE Signal Processing Magazine*, vol. 17, no. 3, May, 2000.
- [73] S. Evans and L. Tong, "On-line Adaptive Re-initialization of the Constant Modulus Algorithm", *IEEE Transactions on Communications..* vol. 48, no. 4, pp. 537-539, Apr., 2000.
- [74] J. Bao and L. Tong, "Protocol-Aided Channel Equalization in Wireless ATM," *IEEE J. Select. Areas in Comm.*,vol. 18, no. 3, pp. 418-435, Mar., 2000.
- [75] A. Touzni, L. Tong, R. Casas and C. R. Johnson, "Vector-CM Stable Equilibrium Analysis," *IEEE Signal Processing Letters*, vol. 7, no. 2, pp. 31-33, Feb., 2000.

- [76] Q. Zhao and L. Tong, "Adaptive Blind Channel Estimation by Least Squares Smoothing," *IEEE Transactions on Signal Processing*, vol. 47, no. 11, Nov., 1999.
- [77] H. Zeng, L. Tong and C.R. Johnson, "An analysis of Constant Modulus Receivers," *IEEE Transactions on Signal Processing*, vol. 47, no. 11, Nov., 1999.
- [78] M. Gu and L. Tong, "Geometrical Characterizations of Constant Modulus Receivers," *IEEE Transactions on Signal Processing*, vol. 47, no. 10, pp. 2745-2757, Oct., 1999.
- [79] L. Tong and Q. Zhao, "Joint Order Detection and Blind Channel Estimation by Least Squares Smoothing," *IEEE Transactions on Signal Processing*, vol. 47, no. 9, pp. 2345-2355, Sept., 1999.
- [80] L. Tong, "Signal Processing for Communication Networks," *IEEE Signal Processing Magazine*, vol 16, no. 2, pp. 42-44, Mar. 1999
- [81] D. Liu and L. Tong "An Analysis of Constant Modulus Algorithm for Array Signal Processing," *Signal Processing*, vol. 73, pp. 81-104, 1999.
- [82] L. Tong and S. Perreau "Blind Channel Estimation: From Subspace to Maximum Likelihood Methods," vol 86, no. 10, pp 1951-1968, *IEEE Proceedings*, 1998.
- [83] H. Zeng, L. Tong, and C.R. Johnson, "Relationships Between the Constant Modulus and Wiener Receivers," *IEEE Transactions on Information Theory*, vol. 44, no. 4, pp. 1523-1538, July, 1998.
- [84] L. Tong, "Source Separation and Diversity for Communications," *IEEE Signal Processing Magazine*, vol. 15, pp. 50-51, Sep. 1998
- [85] H. Zeng and L. Tong, "Blind Channel Estimation Using the Second-Order Statistics: Performance and Limitations" *IEEE Transactions on Signal Processing*, vol. 45, no. 8, pp. 2060-2071, August, 1997.
- [86] H. Zeng and L. Tong, "Blind Channel Estimation Using the Second-Order Statistics: Algorithms" *IEEE Transactions on Signal Processing*, vol. 45, no. 8, pp. 1919-1930, August, 1997.
- [87] L. Tong and H. Zeng, "Channel Surfing Re-initialization for the Constant Modulus Algorithm" *IEEE Signal Processing Letters*, vol. 4, no. 3, pp. 85-87, Mar. 1997.
- [88] L. Tong, "Identification of Multichannel MA Parameters Using Higher-Order Statistics," *Signal Processing*, vol. 53, no. 2, pp. 195-209, 1996
- [89] H. Liu, G. Xu, L. Tong and T. Kailath, "Recent Developments in Blind Channel Equalization: From Cyclostationarity to Subspaces," (invited paper). *Signal Processing*, vol. 50, pp. 82-99, 1996.
- [90] L. Tong and R. Liu, "A Closed-form Identification of Multichannel Moving Average Processes by ESPRIT," *Circuits, Systems and Signal Processing*, vol. 15, no. 3, 1996 pp. 343-359.
- [91] H. Zeng and L. Tong, "Connections of the Least-Squares and Subspace Approaches to Blind Channel Estimation," *IEEE Transactions on Signal Processing*, vol. 44, no. 6, pp. 1593-1596, June, 1996
- [92] T.J. Endres, B.D.O. Anderson, C.R. Johnson, Jr., and L. Tong, "On the robustness of FIR channel identification from fractionally-spaced received signal second-order statistics," *IEEE Signal Processing Letters*, vol. 3, no. 5, pp. 153-155, May, 1996.
- [93] G. Xu, H. Liu, L. Tong and T. Kailath, "Deterministic Blind Identification of Multichannel FIR Systems," *IEEE Transactions on Signal Processing*, vol. 43, no. 12, pp. 2982-2993, Dec. 1995
- [94] L. Tong, "Identifiability of Minimal, Stable, Rational Causal Systems Using Second-order Output Cyclic Spectra," *IEEE Transactions on Automatic Control*, vol. 40, No. 5, pp. 959-962, May, 1995.
- [95] L. Tong, "Blind Sequence Estimation," *IEEE Transactions on Communications*, vol. 43, no. 12, pp. 2986-2994, December, 1995.
- [96] L. Tong, G. Xu, B. Hassibi, and T. Kailath, "Blind Channel Identification and Equalization Using Second-order Statistics: A Frequency-Domain Approach," *IEEE Transactions on Information Theory*, vol. 41, no. 1, pp. 329-334, January 1995.

- [97] V. Soon, L. Tong, Y. Huang, R. Liu, "Subspace Method for Estimating Sensor Gains and Phases," *IEEE Transactions on Signal Processing*, vol. 42, no. 4, pp. 973-976, April, 1994.
- [98] L. Tong, G. Xu, and T. Kailath, "Blind Channel Identification and Equalization Using Second-order Statistics: A Time-Domain Approach," *IEEE Transactions on Information Theory*, vol. 40, no. 2, pp. 340-349, March, 1994.
- [99] L. Tong, Y. Inouye, and R. Liu, "Waveform-Preserving Blind Estimation of Multiple Independent Sources," *IEEE Transactions on Signal Processing*, vol. SP-41, no. 7, pp 2461-2470, July, 1993.
- [100] L. Tong, Y. Inouye, and R. Liu, "A Finite-Step Global Convergence Algorithm for the Parameter Estimation of Multichannel MA Processes," *IEEE Transactions on Signal Processing*, vol. SP-40, no. 10, pp. 2547-2558, October, 1992.
- [101] L. Tong, R. Liu, V. Soon and Y.F. Huang, "The Indeterminacy and Identifiability of Blind Identification.," *IEEE Transactions on Circuits and Systems*, vol. CAS-21, no. 5, pp. 499-509, May, 1991.