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RESEARCH AREA: *Intelligent Signal Processing and Communications*

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I. EARNED DEGREES

- DSc (Doctor of Science), Imperial College London, UK March 2026.
- Ph.D., Electrical Engineering, Auburn University, Auburn, Alabama, December 1994.
- M.Eng, Wireless Engineering, Southeast University, Nanjing, China, March 1986.
- B.Sci, Wireless Engineering, Southeast University, Nanjing, China, June 1983.

II. EMPLOYMENT HISTORY

- *Chair Professor in Wireless Systems*, October 2020 – present,
Department of Electrical and Electronic Engineering, Imperial College London, UK
Research Area: *Machine learning and signal processing for communications*
- *Associate/Full Professor*, August 2000 – September 2020,
School of Electrical and Computer Engineering, Georgia Tech, Atlanta, GA, USA
Research Area: *Machine learning and signal processing for communications*
- *Senior/Principal Technical Staff Member*, May 1996 – August 2000,
AT&T Labs - Research (part of former AT&T Bell Labs), Red Bank, NJ, USA
Research Area: *Wireless communications*

III. HONORS AND AWARDS

A. Major Recognitions

- **Fellow of the (UK) Royal Academy of Engineering (FREng)** in 2024 for outstanding contributions to *Wireless Signal Processing, Transmission, and Standardization*.
- **IEEE Eric E. Sumner (Technical-Field) Award** in 2024 for fundamental contributions to *Frequency Domain Communications including Orthogonal Frequency Division Multiplexing*.
- **IEEE Communications Society Edwin Howard Armstrong Achievement Award** in 2019 for outstanding contribution to *Wireless Signal Transmission and Processing*.
- **IEEE Vehicular Technology Society James E. Avant Garde Award** in 2013 for advancing the state-of-art in OFDM-aided wireless communications.
- **IET Fellow** since October 2021.
- **IEEE Fellow** since 2006 for contribution in *Signal Processing for Wireless Communications*.
- **Doctor of Science (DSc)** awarded by *Imperial College London* in March 2026 for collective publications in deep learning for wireless communications.
- **2015 Distinguished ECE Faculty Achievement Award** from *Georgia Institute of Technology*, Atlanta, USA.
- **World's Most Influential Scientific Mind**, also known as **Highly Cited Researcher**, by Thomson Reuters/*Clarivate* (<http://highlycited.com/browse/>) in 2001, 2014, 2016 – 2025.
- **Over 86,000 citations** with an **H-index over 130** based on the Google Scholar.

B. Selected Recognitions

- **Thank a Teacher Certificate** for being a great teacher *in appreciation the teaching style and dedication to helping students learn in Digital Communications* by the *Center for the Enhancement of Teaching and Learning (CETL)* of Georgia Tech., March 2008.
- **2010 Stephen O. Rice Prize Paper Award** from the *IEEE Communications Society* in the field of Communication Theory.

- **2014 Jack Neubauer Memorial Award** from the *IEEE Vehicular Technology Society*.
- **2017 Award for Advances in Communication** from the *IEEE Communications Society* for an outstanding paper that opens the new line of work in any *IEEE ComSoc* publication in the previous 15 years.
- **2017 IEEE SPS Donald G. Fink Overview Paper Award** for a journal article that has had substantial impact over several years on a subject within the technical scope of the SP Society.
- **2022 Fred W. Ellersick Prize Paper Award** from the *IEEE Communications Society*.
- **2023 IEEE SPS Best Paper Award.**
- **2025 Best Tutorial Paper Award** from the *IEEE Communications Society*.

- **Distinguished Lecturers**
 - *IEEE Communications Society* (2009 – 2010)
 - *IEEE Vehicular Technology Society* (2016 – 2020)

- **Best Conference Paper Awards:**
 - *IEEE PIMRC'14* Best Paper Award.
 - *IEEE Globecom'18* Best Paper Award.
 - *2019 IEEE TCGCC* Best Conference Paper Award.
 - *IEEE Globecom'19* Best Paper Award

- **Technical Recognitions:**
 - 2013 Wireless Communications Recognition Award from the *IEEE Communications Society Wireless Communications Technical Committee* for outstanding technical contributions in the field and service to the scientific and engineering communities.
 - 2017 Distinguished Technical Achievement Recognition Award from the *IEEE Communications Society Technical Committee on Green Communications and Computing (TCGCC)* for outstanding technical leadership and achievement in green wireless communications and networks.
 - 2017 SPEC Technical Recognition Award from the *IEEE Communications Society Signal Processing and Communications Electronics (SPCE) Technical Committee* for outstanding contributions to the technological advancement of signal processing for communications.
 - 2019 TCCN Recognition Award for outstanding contributions to cooperative signal processing in cognitive radio from the *IEEE Communications Society Technical Committee on Cognitive Networks (TCCN)*.

- **Service Recognitions:**
 - Certificate of Merit for as a General Co-Chair of *GlobalSIP 2014* “for dedication and leadership in organizing the Global Conference on Signal and information Processing (GlobalSIP)” from *IEEE Signal Processing Society*.
 - Vehicular Technology Conference General Co-Chair Recognition for exemplary contributions to the success of the *2019 IEEE VTC'19 Fall* from *IEEE Vehicular Technology Society*

IV. RESEARCH, SCHOLARSHIP, AND CREATIVE ACTIVITIES

A. Books and Book Chapters

A.1 Books

1. Z. Ding and Y. (G.) Li, *Blind Equalization and Identification*, Marcel Dekker, Inc., New York, December 2000. (418 pp.)
2. C.-L. I, G.-D. Yu, S.-F. Han, and G. Y. Li, *Green and Software-Defined Wireless Networks: From Theory to Practice*, Cambridge University Press, Cambridge, UK, 2019. (289 pp.)
3. L. Liang, S. Jin, H. Ye, and G. Y. Li, *Wireless Communications and Machine Learning*, Cambridge University Press, Cambridge, UK, 2025.

A.2 Book Chapters

1. U. Onunkwo and Y. (G.) Li, "Modulation and signal detection in UWB," in *Ultra-Wideband Wireless Communications and Networks*, edited by S. Shen, *et al*, Wiley, New York, April 2006.
2. G. Y. Li, X. Wang, H.-J. Hu, L. Qin, A. C. K. Soong, "Timing and iterative IBI and ICI cancellation," in *Orthogonal Frequency Division Multiplexing with Diversity for Future Wireless Systems*, edited by Khoa Le, Bentham e-books, Bentham Science Publishers Ltd., January 2011
3. X. Zhou, G. Y. Li, D. Li, D. Wang, and A. Soong, "Bandwidth-efficient cooperative spectrum sensing," in *Cognitive Radio for Wireless Cellular and Vehicular Networks*, edited by H. Venkataraman and G.-M. Muntean, Boston, MA: Springer, 2012.
4. C. Xiong and G. Y. Li, "Energy-Efficient Wireless OFDMA Networks", in *Towards 5G: Applications, Requirements and Candidate Technologies*, edited by R. Vannithamby and S. Talwar, Wiley, NewYork, February 2016.
5. H.-T. He, H. Ye, S. Jin, and G. Y. Li, "Channel Estimation, Feedback, and Signal Detection", in *Machine Learning and Wireless Communications*, edited by Y. C. Eldar, A. Goldsmith, D. Gunduz, and H. V. Poor, Cambridge University Press, 2022.

A.3 Edited Volumes

1. Y. (G.) Li and G. Stüber, *OFDM for Wireless Communications* (edited), Springer, Inc., Boston, MA, January 2006. (306pp.)
2. G. Y. Li, J. Hoydis, E. d. Carvalho, A. Balatsoukas-Stimming, and Z.-J. Qin, *Best Readings in Machine Learning in Communications*, at <https://www.comsoc.org/publications/best-readings/machine-learning-communications>, *IEEE ComSoc*, March 2019, revised July 2021.

B. Refereed Publications**B.1 Published/Accepted Articles**

1. Z. Ding and Y. Li, "On channel identification based on second order cyclic spectra," *IEEE Transactions on Signal Processing*, vol. 42, pp. 1260-1264, May 1994.
2. Y. Li and Z. Ding, "A new nonparameter method for linear system phase recovery from bispectrum," *IEEE Transactions on Circuits and Systems II: Analog and Digital Signal Processing*, vol. 41, pp. 415-419, June 1994.
3. Y. Li and Z. Ding, "ARMA system identification based on second order cyclostationarity," *IEEE Transactions on Signal Processing*, vol. 42, pp. 3483-3494, December 1994.
4. Y. Li and Z. Ding, "A simplified approach to optimum diversity combining and equalization in digital data transmission," *IEEE Transactions on Communications*, vol. 43, pp. 2285-2288, August 1995.
5. Y. Li and Z. Ding, "Convergence analysis of finite length blind adaptive equalizers," *IEEE Transactions on Signal Processing*, vol. 43, pp. 2120-2129, September 1995.
6. Y. Li and Z. Ding, "Global convergence of fractionally spaced Godard adaptive equalizers," *IEEE Transactions on Signal Processing*, vol. 44, pp. 818-826, April 1996.
7. Y. Li, K. J. R. Liu, and Z. Ding, "Length and cost dependent local minima of blind channel equalizers," *IEEE Transactions on Signal Processing*, vol. 44, pp. 2726-2735, November 1996.
8. Y. Li and K. J. R. Liu, "Static and dynamic convergence of adaptive blind equalizers," *IEEE Transactions on Signal Processing*, vol. 44, pp. 2736-2745, November 1996.
9. Y. Li and K. J. R. Liu, "Blind adaptive spatial-temporal equalization algorithms for wireless communications using antenna arrays," *IEEE Communication Letters*, vol. 1, pp. 25-27, January 1997.
10. Y. Li, K. J. R. Liu, and J. Razavilar, "An improved parameter estimation scheme for damped sinusoidal signals based on low-rank Hankel approximation," *IEEE Transactions on Signal Processing*, vol. 45, pp. 481-487, February 1997.
11. Y. (G.) Li, J. Razavilar, and K. J. R. Liu, "A high-resolution technique for multi-dimensional NMR spectroscopy," *IEEE Transactions on Biomedical Engineering*, vol. 45, pp. 78-86, January 1998.
12. J. Razavilar, Y. Li, and K. J. R. Liu, "A structured low-rank matrix pencil for spectral estimation and system identification," *Signal Processing*, vol. 65/issue 3, pp. 363-372, March 1998.

13. Y. (G.) Li, L. J. Cimini, Jr., and N. R. Sollenberger, "Robust channel estimation for OFDM systems with rapid dispersive fading channels," *IEEE Transactions on Communications*, vol. 46, pp. 902-915, July 1998.
14. Y. (G.) Li and K. J. R. Liu, "Adaptive blind multi-channel equalization for multiple signal separation," *IEEE Transactions on Information Theory*, vol. 44, pp. 2864-2876, November 1998.
15. S. Ariyavisitakul and Y. (G.) Li, "Joint coding and decision feedback equalization for broadband wireless channels," *IEEE Journal on Selected Areas in Communications*, vol. 16, pp. 1670-1678, December 1998.
16. Y. (G.) Li and N. R. Sollenberger, "Adaptive antenna arrays for OFDM systems with co-channel interference," *IEEE Transactions on Communications*, vol. 47, pp. 217-229, February 1999.
17. Y. (G.) Li, N. Seshadri, and S. Ariyavisitakul, "Channel estimation for OFDM systems with transmitter diversity in mobile wireless channels," *IEEE Journal on Selected Areas in Communications*, vol. 17, pp. 461-471, March 1999.
18. Y. (G.) Li, J. H. Winters, and N. Sollenberger, "Spatial-temporal equalization for IS-136 TDMA systems with rapid dispersive fading and co-channel interference," *IEEE Transactions on Vehicular Technology*, vol. 48, pp. 1182-1194, July 1999.
19. Y. (G.) Li, J. Chuang, and N. R. Sollenberger, "Transmitter diversity for OFDM systems and its impact on high-rate data wireless networks," *IEEE Journal on Selected Areas in Communications*, vol. 17, pp. 1233-1243, July 1999.
20. J. Chuang, L. J. Cimini, Jr., Y. (G.) Li, B. McNair, N. Sollenberger, H. Zhao, L. Lin, and M. Suzuki, "High-speed wireless data access based on combining EDGE with wideband OFDM," *IEEE Communications Magazine*, vol. 37, pp. 92-98, November 1999.
21. Y. (G.) Li, "Pilot-symbol-aided channel estimation for OFDM in wireless systems," *IEEE Transactions on Vehicular Technology*, vol. 49, pp. 1207-1215, July 2000.
22. Y. (G.) Li and L. J. Cimini, Jr., "Bounds on the interchannel interference of OFDM in time-varying channels," *IEEE Transactions on Communications*, vol. 49, pp. 401-404, March 2001.
23. B. Sampath, K. J. R. Liu, and Y. (G.) Li, "Error correcting least squares subspace algorithm for blind identification and equalization," *Signal Processing*, vol. 81, no. 10, pp. 2069-2087, September 2001.
24. R. S. Blum, Y. (G.) Li, J. H. Winters, and Q. Yan, "Improved space-time coding for MIMO-OFDM wireless communications," *IEEE Transactions on Communications*, vol. 49, pp. 1873-1878, November 2001.
25. Y. (G.) Li and N. R. Sollenberger, "Clustered OFDM with channel estimation for high-rate wireless data," *IEEE Transactions on Communications*, vol. 49, pp. 2071-2076, December 2001.
26. H. Zeng, Y. (G.) Li, and J. H. Winters, "Improved spatial-temporal equalization for EDGE: a fast MMSE timing recovery algorithm and 2-Stage soft-output equalizer," *IEEE Transactions on Communications*, vol. 49, pp. 2124-2134, December 2001.
27. Y. (G.) Li, "Simplified channel estimation for OFDM systems with multiple transmit antennas," *IEEE Transactions on Wireless Communications*, vol. 1, pp. 67-75, January 2002.
28. B. Lu, X.-D. Wang, and Y. (G.) Li, "Iterative receivers for space-time block coded OFDM systems in dispersive fading channels," *IEEE Transactions on Wireless Communications*, vol. 1, pp. 213-225, April 2002.
29. B. Sampath, K. J. R. Liu, and Y. (G.) Li, "Deterministic blind subspace MIMO equalization," *EURASIP Journal on Applied Signal Processing*, pp. 538-551, May 2002.
30. Y. (G.) Li, J. H. Winters, and N. R. Sollenberger, "MIMO-OFDM for wireless communications: signal detection with enhanced channel estimation," *IEEE Transactions on Communications*, vol. 50, pp. 1471-1477, September 2002. (once among top 100 documents downloaded of all papers in 300 journals in *IEEE Xplore*)
31. H. Zhang and Y. (G.) Li, "Optimum frequency-domain partial response encoding in OFDM system," *IEEE Transactions on Communications*, vol. 51, pp. 1064-1068, July 2003.
32. G. L. Stuber, J. Barry, S. McLaughlin, Y. (G.) Li, M. A. Ingram, and T. Pratt, "Broadband MIMO-OFDM wireless communications," *The Proceedings of IEEE*, vol. 92, pp. 271-294, February 2004.
33. J.-X. Du and Y. (G.) Li, "D-BLAST OFDM with channel estimation," *EURASIP Journal on Applied Signal Processing*, pp. 605-611, May 2004.

34. Y. (G.) Li, "Spatial-temporal processing for wireless systems with ISI and CCI," *IEEE Transactions on Communications*, vol. 52, pp. 1514-1522, September 2004.
35. A. Vielmon, Y. (G.) Li, and J. R. Barry, "Performance of transmit diversity over time-varying Rayleigh-fading channels," *IEEE Transactions on Wireless Communications*, vol. 3, no. 5, pp. 1369-1373, September 2004.
36. H. Zhang and Y. (G.) Li, "Clustered OFDM with adaptive antenna array for interference suppression," *IEEE Transactions on Wireless Communications*, vol. 3, no. 6, pp. 2189-2197, November 2004.
37. Z. Jiang, Y. Ge, and Y. (G.) Li, "Max-utility wireless resource management for best effort traffic," *IEEE Transactions on Wireless Communications*, vol. 4, no. 1, pp. 100-111, January 2005.
38. J.-N. Yang and Y. (G.) Li, "Tentative chip decision-feedback equalizer for multicode wideband CDMA," *IEEE Transactions on Wireless Communications*, vol. 4, no. 1, pp. 131-148, January 2005.
39. G.-C. Song and Y. (G.) Li, "Cross-layer optimization for OFDM wireless networks – Part I: theoretical framework," *IEEE Transactions on Wireless Communications*, vol. 4, no. 2, pp. 614 – 624, March 2005.
40. G.-C. Song and Y. (G.) Li, "Cross-layer optimization for OFDM wireless networks – Part II: algorithm development," *IEEE Transactions on Wireless Communications*, vol. 4, no. 2, pp. 625 – 634, March 2005.
41. A. F. Molisch, Y. (G.) Li, Y.-P. Nakache, P. Orlik, M. Miyake, Y. Wu, S. Gezici, H. Sheng, S. Y. Kung, H. Kobayashi, H. V. Poor, A. Haimovich, and J. Zhang, "A low-cost time-hopping impulse radio for high data rate transmission," *EURASIP Journal on Applied Signal Processing*, pp. 397-412, March 2005.
42. U. Onunkwo and Y. (G.) Li, "On the optimum pulse-position modulation index for ultra-wideband communications," *International Journal of Dynamics of Continuous, Series B: Applications & Algorithms*, special issue on *Ultra-Wideband Wireless Communications*, vol. 12, no. 3, pp. 353-362, June 2005.
43. J.-X. Du and Y. (G.) Li, "Optimization of antenna configuration for MIMO systems," *IEEE Transactions on Communications*, vol.53, no. 9, pp. 1451-1454, September 2005.
44. I. R. Capoglu, Y. (G.) Li, and A. Swami, "Effect of Doppler spread in OFDM based UWB systems," *IEEE Transactions on Wireless Communications*, vol. 4, no. 2, pp. 2559 - 2567, September 2005.
45. G.-C. Song and Y. (G.) Li, "Utility-based resource allocation and scheduling in OFDM-based wireless networks," *IEEE Communications Magazine*, vol. 43, no. 12, pp. 127 - 135, December 2005. (in best readings at <http://www.comsoc.org/best-readings>)
46. T. Hwang and Y. (G.) Li, "Novel iterative equalization based on energy spreading transform," *IEEE Transactions on Signal Processing*, vol. 54, no. 1, pp. 190-203, January 2006.
47. U. Onunkwo, Y. (G.) Li, and A. Swami, "Effect of timing jitter on OFDM based UWB systems," *IEEE Journal on Selected Areas in Communications*, vol. 24, no. 4, pp. 787-793, April 2006.
48. T. Hwang, Y. (G.) Li, and H. Sari "Energy spreading transform based iterative signal detection for MIMO fading channels," *IEEE Transactions on Wireless Communications*, vol. 5, no. 7, pp. 1746-1756, July 2006.
49. Y. (G.) Li, A. Molisch, J. Zhang, "Practical approaches to channel estimation and interference suppression for OFDM based UWB communications," *IEEE Transactions on Wireless Communications*, vol. 5, no. 9, pp. 2317-2320, September 2006.
50. H. Zhang, Y. (G.) Li, J. Terry, and A. Reid, "Optimal training symbol design for MIMO OFDM in correlated fading channels," *IEEE Transactions on Wireless Communications*, vol. 5, no. 9, pp. 2343-2347, September 2006.
51. G.-C. Song and Y. (G.) Li, "Asymptotic throughput analysis for channel-aware scheduling," *IEEE Transactions on Communications*, vol. 54, no. 10, pp. 1827-1834, October 2006.
52. J.-X. Du and Y. (G.) Li, "Parallel detection of space-time codes by predictive soft interference cancellation," *IEEE Transactions on Communications*, vol. 54, no. 12, pp. 2150-2154, December 2006.
53. H. Zhang, Y. (G.) Li, V. Stolpamn, and N. van Waes, "A reduced CSI feedback approach for precoded MIMO-OFDM systems," *IEEE Transactions on Wireless Communications*, vol. 6, no. 1, pp. 55-59, January 2007.

54. J. B. Kim, G. L. Stuber, and Y. (G.) Li, "Low-complexity iterative channel estimation for serially concatenated systems over flat fading channels," *IEEE Transactions on Wireless Communications*, vol. 6, no. 2, pp. 438-442, February 2007.
55. T. Hwang and Y. (G.) Li, "Optimum filtering for energy spreading transform based equalization," *IEEE Transactions on Signal Processing*, vol. 55, no. 3, pp. 1182-1187, March 2007.
56. J. Du, Y. (G.) Li, D. Gu, A. Molisch, and J. Zhang, "Statistical rate allocation for layered space-time system," *IEEE Transactions on Communications*, vol. 55, no. 3, pp. 489-496, March 2007.
57. W. Jiang, Y. (G.) Li, and X.-X. Yu, "Truncation for low complexity MIMO signal detection," *IEEE Transactions on Information Theory*, vol. 53, no. 4, pp. 1564-1571, April 2007.
58. J. S. Kwak, H. Kang, Y. (G.) Li, G. L. Stuber, and H. Shin, "Effects of spatial correlation on a MIMO adaptive antenna system with optimum combining," *IEEE Transactions on Wireless Communications*, vol. 6, no. 5, pp. 1722-1731, May 2007.
59. G. Ganesan and Y. (G.) Li, "Cooperative spectrum sensing in cognitive radio: Part I: two user networks," *IEEE Transactions on Wireless Communications*, vol. 6, pp. 2204-2213, June 2007. (in best readings at <http://www.comsoc.org/best-readings>)
60. G. Ganesan and Y. (G.) Li, "Cooperative spectrum sensing in cognitive radio: Part II: multiuser networks," *IEEE Transactions on Wireless Communications*, vol. 6, pp. 2214-2222, June 2007. (in best readings at <http://www.comsoc.org/best-readings>)
61. G. Ganesan, Y. (G.) Li, and Frederick W. Vook, "Stability region of multicarrier channel aware Aloha," *IEEE Transactions on Information Theory*, vol. 53, no. 9, pp. 3212-3218, September 2007.
62. J. B. Kim, G. L. Stuber, and Y. (G.) Li, "Iterative channel estimators in V-BLAST OFDM systems," *IEEE Transactions on Wireless Communications*, vol. 7, pp. 65 – 71, January 2008.
63. G. Ganesan, Y. (G.) Li, B. Bing, and S.-Q. Li, "Spatial-temporal sensing in cognitive radio networks," *IEEE Journal on Selected Areas in Communications*, vol. 26, pp. 5 – 12, January 2008.
64. T. Hwang, Y. (G.) Li, and Y. Yuan-Wu, "Energy spreading transform for down-link MC-CDMA," *IEEE Transactions on Wireless Communications*, vol. 7, no. 5, pp. 1522-1526, May 2008.
65. Y. Yuan-Wu and Y. (G.) Li, "Iterative and diversity techniques for uplink MC-CDMA mobile systems," *IEEE Transactions on Vehicular Technology*, vol. 57, no. 2, pp. 1040-1048, March 2008.
66. V. K. Y. Wu, Y. (G.) Li, M. Green, A. Reid, and P. Wang, "Power allocation for OFDM-based cooperative relay systems," *Journal of Communications and Networks*, vol. 10, no. 2, pp. 156 – 162, June 2008.
67. H. Zhang, Y. (G.) Li, and Y. Yuan-Wu, "Practical considerations on channel estimation for up-link MC-CDMA system," *IEEE Transactions on Wireless Communications*, vol. 7, no. 11, pp. 4384 – 4392, November 2008.
68. J. Ma, G.-D. Zhao, and Y. (G.) Li, "Soft combination and detection for cooperative spectrum sensing in cognitive radio networks," *IEEE Transactions on Wireless Communications*, vol. 7, no. 11, pp. 4502 – 4507, November 2008. (*Web of Science highly cited paper*)
69. G.-W. Miao, N. Himayat, G. Y. Li, and A. Swami, "Cross-layer optimization for energy-efficient wireless communications: A survey," (**invited paper**) *Wiley Journal Wireless Communications and Mobile Computing*, vol.9, no.4, pp. 529-542, April 2009. (*Web of Science highly cited paper*)
70. T. Hwang, C.-Y. Yang, G. Wu, S.-Q. Li, and G. Y. Li, "OFDM and its wireless applications: a survey," (**invited paper**) *IEEE Transactions on Vehicular Technology*, vol. 58, no. 4, pp. 1673 – 1694, May 2009. (*Web of Science highly cited paper*)
71. J. Ma, G. Y. Li, and B.-H. Juang, "Signal processing in cognitive radio," *The Proceedings of IEEE*, vol. 97, no. 5, pp. 805 – 823, May 2009. (*Web of Science highly cited paper*)
72. G. Song, Y. (G.) Li, and L. J. Cimini, Jr., "Joint channel- and queue-aware scheduling for multiuser diversity in wireless multicarrier networks," *IEEE Transactions on Communications*, vol. 57, no. 7, pp. 2109 – 2121, July 2009. (2010 IEEE ComSoc Stephen O. Rice Prize Paper Award)
73. J. Lee, T. Hwang, and G. Y. Li, "Signal detection for EST-based modulation and signal in doubly-selective channels," *IEEE Transactions on Signal Processing*, vol. 57, no. 8, pp. 3287 – 3291, August 2009.

74. G.-D. Zhao, G. Y. Li, and C.-Y. Yang, "Proactive detection of spatial spectrum opportunities in primary systems with power control," *IEEE Transactions on Wireless Communications*, vol. 8, no. 9, pp. 4815 – 4823, September 2009.
75. X.-W. Zhou, J. Ma, Y. (G.) Li, Y. H. Kwon, and A. C. K. Soong, "Probability-based optimization of inter-sensing duration and power control in cognitive radio," *IEEE Transactions on Wireless Communications*, vol. 8, no. 10, pp. 4922 – 4927, October 2009.
76. G.-D. Zhao, J. Ma, G. Y. Li, T. Wu, Y. H. Kwon, A. Soong, and C.-Y. Yang, "Spatial spectrum holes for cognitive radio with relay-assisted directional transmission," *IEEE Transactions on Wireless Communications*, vol. 8, no. 10, pp. 5270 – 5279, October 2009.
77. G.-W. Miao, G. Y. Li, and A. Swami, "Decentralized optimization for multichannel random access," *IEEE Transactions on Communications*, vol. 57, no. 10, pp. 3012 – 3023, October 2009.
78. G.-W. Miao, G. Y. Li, N. Himayat, and S. Talwa, "Cochannel interference avoidance MAC in wireless cellular networks," *IEEE Transactions on Communications*, vol. 57, no. 11, pp. 3892 – 3405, November 2009.
79. W. Jiang, Y. Li, and X.-X. Yu, "Maximum IPP codes of length 3," *Annals of Combinatorics*, pp. 491-510, vol. 13, January 2010.
80. X.-W. Zhou, J. Ma, G. Y. Li, Y. H. Kwon, and A. C. K. Soong, "Probability-based combination for cooperative spectrum sensing," *IEEE Transactions on Communications*, vol. 58, no. 4 pp. 463 – 466, February 2010.
81. G.-W. Miao, N. Himayat, and G. Y. Li, "Energy-efficient link adaptation in frequency-selective channels," *IEEE Transactions on Communications*, vol. 58, no. 4 pp. 545 – 554, February 2010. (*Web of Science* highly cited paper)
82. X. Wang, G. Y. Li, H.-J. Hu, L. Qin, and A. C. K. Soong, "Pre-processing optimization for IBI mitigation in an OFDM system over channels with extra-large delay spreads," *Elsevier Journal on PHYCOM: Physical Communications*, vol. 3, pp. 198-204, March 2010.
83. J. Ma, X.-W. Zhou, and Y. (G.) Li, "A probability-based periodic spectrum sensing during secondary communication," *IEEE Transactions on Communications*, vol. 58, no. 2, pp. 1291 – 1301, April 2010.
84. X.-W. Zhou, G. Y. Li, D.-D. Li, D.-D. Wang, and A. C. K. Soong, "Probabilistic resource allocation for opportunistic spectrum access," *IEEE Transactions on Wireless Communications*, vol. 9, no. 9, pp. 2870 – 2879, September 2010.
85. S. A. Hassan, G. Y. Li, P. S. S. Wang, and M. Green, "A full rate dual relay cooperative approach for wireless systems," *IEEE Journal on Communications and Networks*, vol. 12, no. 5, pp. 442 – 448, October 2010.
86. L.-Y. Li, X.-W. Zhou, H.-B. Xu, and G. Y. Li, D.-D. Wang, and A. C. K. Soong, "Simplified relay selection and power allocation in cooperative cognitive radio system," *IEEE Transactions on Wireless Communications*, vol. 10, no. 1, pp. 33 – 36, January 2011. (*Web of Science* highly cited paper)
87. G.-D. Zhao, C.-Y. Yang, G. Y. Li, D.-D. Li, and A. C. K. Soong "Power and channel allocation for cooperative relay in cognitive radio networks," *IEEE Journal on Selected Topics in Signal Processing*, vol. 5, pp. 151 – 159, February 2011.
88. M. S. A. Bashar, Z. Ding, and G. Y. Li, "On secrecy capacity of codebook-based transmission beamforming under receiver limited feedback," *IEEE Transactions on Wireless Communications*, vol. 10, no. 4, pp. 1212 – 1223, April 2011.
89. G.-W. Miao, N. Himayat, G. Y. Li, S. Talwar, "Distributed interference-aware energy-efficient power optimization," *IEEE Transactions on Wireless Communications*, vol. 10, no. 4, pp. 1323 – 1333, April 2011. (*Web of Science* highly cited paper)
90. Y. Chen, S.-Q. Zhang, S.-G. Xu, and G. Y. Li, "Fundamental tradeoffs on green wireless networks," *IEEE Communications Magazine*, vol. 49, no. 6, pp. 30 – 37, June 2011. (*Web of Science* highly cited paper, in best readings at <http://www.comsoc.org/best-readings>, once among top 100 documents downloaded of all papers in 300 journals in *IEEE Xplore*, and 2017 *IEEE ComSoc Award for Advances in Communication*)

91. J. Ma, P. Orlik, J. Zhang, and G. Y. Li, "Pilot matrix design for estimating cascaded channels in two-hop MIMO AF relay systems," *IEEE Transactions on Wireless Communications*, vol. 10, no. 6, pp. 1956 – 1965, June 2011.
92. L.-Y. Li, G. Wu, H.-B. Xu, G. Y. Li, and X. Feng, "A practical allocation approach for interference management in LTE uplink transmission," Special Issue of *Journal of Communications*, vol. 6, no. 7, pp. 301 – 305, July 2011.
93. Y.-C. Liang, K.-C. Chen, G. Y. Li, and P. Mähönen, "Cognitive radio networking and communications: an overview," *IEEE Transactions on Vehicular Technology*, vol. 60, no. 7, pp. 3386 – 3407, September 2011. (*Web of Science* highly cited paper, once among top 100 documents downloaded of all papers in 300 journals in *IEEE Xplore*, and 2014 *IEEE VTS Jack Neubauer Memorial Award*)
94. L.-Y. Li, X.-W. Zhou, H.-B. Xu, G. Y. Li, D.-D. Wang, and A. C. K. Soong, "Energy-efficient transmission in cognitive radio networks," *IEEE Transactions on Broadcasting*, vol. 57, no. 3, pp. 718 – 720, September 2011.
95. J. Ma, P. Orlik, J.-Y. Zhang, and G. Y. Li, "Statistics-based ICI mitigation in OFDM over high-mobility channels with line-of-sight," *IEEE Transactions on Wireless Communications*, vol. 10, no. 11, pp. 3577 – 3582, November 2011.
96. C. Xiong, G. Y. Li, S.-Q. Zhang, Y. Chen, and S.-G. Xu, "Energy- and spectral-efficient tradeoff in downlink OFDMA networks," *IEEE Transactions on Wireless Communications*, vol. 10, no. 11, pp. 3874 – 3886, November 2011. (*Web of Science* highly cited paper)
97. J.-C. Fan, Q.-Y. Yin, G. Y. Li, B.-G. Peng, and X.-L. Zhu, "Adaptive block-level resource allocation in OFDM networks," *IEEE Transactions on Wireless Communications*, vol. 10, no. 11, pp. 3966 – 3972, November 2011.
98. G. Y. Li, Z.-K. Xu, C. Xiong, C.-Y. Yang, S.-Q. Zhang, Y. Chen, and S.-G. Xu, "Energy-efficient wireless communications: tutorial, survey, and open issues," *IEEE Wireless Communications*, vol. 18, no. 6, pp. 28 – 35, December 2011. (*Web of Science* highly cited paper, in best readings at <http://www.comsoc.org/best-readings>, and once among top 100 documents downloaded of all papers in 300 journals in *IEEE Xplore*)
99. G.-W. Miao, N. Himayat, G. Y. Li, and S. Talwar, "Low-complexity energy-efficient scheduling for uplink OFDMA," *IEEE Transactions on Communications*, vol. 60, no. 1, pp. 112 – 120, January 2012. (*Web of Science* highly cited paper)
100. L. Lu, X.-W. Zhou, U. Onunkwo, and G. Y. Li, "Ten years of research in spectrum sensing and sharing in cognitive radio," *EURASIP Journal on Wireless Communications and Networking: Special Issue*, January 2012. (highly accessed article of the journal <http://jwcn.urasipjournals.com/mostviewed/alltime>)
101. J. Ma, P. Orlik, J.-Y. Zhang, and G. Y. Li, "Reduced-rate OFDM for statistics-based ICI self-cancellation," *IEEE Transactions on Wireless Communications*, vol. 11, no. 6, pp. 2013 – 2023, June 2012.
102. Z.-K. Xu, G. Y. Li, C.-Y. Yang, and X.-L. Zhu, "Throughput and optimal threshold for FFR schemes in OFDMA cellular networks," *IEEE Transactions on Wireless Communications*, vol. 11, no. 8, pp. 2776 – 2785, August 2012.
103. J.-C. Fan, G. Y. Li, Q.-Y. Yin, B.-G. Peng, and X.-L. Zhu, "Joint user pairing and resource allocation in SC-FDMA for LTE uplink transmission," *IEEE Transactions on Wireless Communications*, vol. 11, no. 8, pp. 2838 – 2847, August 2012.
104. G.-W. Miao, G. Y. Li, and A. Swami, "Channel aware distributed medium access control," *IEEE/ACM Transactions on Networks*, vol. 20, no. 4, pp. 1290 – 1303, August 2012.
105. Z.-K. Xu, G. Y. Li, C.-Y. Yang, S.-Q. Zhang, Y. Chen, and S.-G. Xu, "Energy-efficient power allocation for pilots in training-based downlink OFDM systems," *IEEE Transactions on Communications*, vol. 60, no. 10, pp. 3047– 3057, October 2012.
106. X.-W. Zhou, G. Y. Li, and G.-L. Sun, "Low-complexity spectrum shaping for OFDM-based cognitive radio," *IEEE Signal Processing Letters*, vol. 19, no. 10, pp. 667 – 670, October 2012.
107. L. Lu, G. Y. Li, and S.-Q. Li, "Optimum periodic spectrum sensing for CR networks," *IEEE Communications Letters*, vol. 16, no. 12, pp. 1956-1959, December 2012.

108. C. Xiong, G. Y. Li, S.-Q. Zhang, Y. Chen, and S.-G. Xu, "Energy-efficient resource allocation in OFDMA networks," *IEEE Transactions on Communications*, vol. 60, no. 12, pp. 3767 – 3778, December 2012. (*Web of Science* highly cited paper)
109. J.-X. Wu and G. Y. Li, "Collision-tolerant media access control with on-off accumulative transmission," *IEEE Transactions on Wireless Communications*, vol. 12, no. 1, pp. 50 -59, January 2013.
110. D.-Q. Feng, C.-Z. Jiang, G.-B. Lim, L. J. Cimini, Jr., G. Feng, and G. Y. Li, "A survey of energy efficient wireless communications," *IEEE Communications Surveys and Tutorials*, vol. 15, no. 1, pp. 167-178, the 1st Quarter 2013. (*Web of Science* highly cited paper, in best readings at <http://www.comsoc.org/best-readings>, and once among top 100 documents downloaded of all papers in 300 journals in *IEEE Xplore*)
111. Z.-K. Xu, C.-Y. Yang, G. Y. Li, S.-Q. Zhang, Y. Chen, and S.-G. Xu, "Energy-efficient configuration of spatial and frequency resources in MIMO-OFDM systems," *IEEE Transactions on Communications*, vol. 61, no. 2, pp. 564 – 575, February 2013.
112. X.-W. Zhou, G. Y. Li, and G.-L. Sun, "Multiuser spectral precoding for OFDM-based cognitive radios," *IEEE Journal on Selected Areas in Communications*, vol. 31, No. 3, pp. 345 – 352, March 2013.
113. L. Lu, G. Y. Li, and G. Wu, "Optimal power allocation for CR networks with direct and relay-aided transmissions," *IEEE Transactions on Wireless Communications*, vol. 12, no. 4, pp. 1832 – 1842, April 2013.
114. J.-P. Niu, D.-W. Lee, X.-F. Ren, G. Y. Li, and T. Su, "Scheduling exploiting frequency and multi-user diversity in LTE downlink systems," *IEEE Transactions on Wireless Communications*, vol. 12, no. 4, pp. 1843 – 1849, April 2013.
115. H. He, S.-Q. Li, and G. Y. Li, "Adaptive spectrum sensing for time-varying channels in cognitive radios," *IEEE Wireless Communications Letters*, vol. 2, no. 2, page 227 – 230, April 2013.
116. C.-L. He, B. Sheng, P.-C. Zhu, X.-H. You and G. Y. Li, "Energy- and spectral-efficient for distributed antenna systems with proportional fairness," *IEEE Journal on Selected Areas in Communications*, vol. 31, no. 5, pp. 894 – 902, May 2013.
117. C. Xiong, G. Y. Li, Y.-L. Liu, Y. Chen, and S.-G. Xu, "Energy-efficient design for downlink OFDMA networks with delay-sensitive traffic," *IEEE Transactions on Wireless Communications*, vol. 12, no. 6, pp. 3085 – 3095, June 2013.
118. D.-Q. Feng, L. Lu, Y. Yuan-Wu, G. Y. Li, G. Feng, and S.-Q. Li, "Device-to-device communications in underlying cellular networks," *IEEE Transactions on Communications*, vol. 61, no. 8, pp. 3541 – 3551, August 2013. (*Web of Science* highly cited paper, highlighted in *IEEE ComSoc Technology News* in December 2014 at <http://www.comsoc.org/ctn/archive>, in best readings at <http://www.comsoc.org/best-readings>, and once among top 100 documents downloaded of all papers in 300 journals in *IEEE Xplore*)
119. G. Wang, J.-X. Wu, G.-Q. Zhou, and G. Y. Li "Collision-tolerant media access control for asynchronous users over frequency-selective channels," *IEEE Transactions on Wireless Communications*, vol. 12, no. 10, pp. 5162 – 5171, October 2013.
120. D.-W. Lee, G. Y. Li, and S.-W. Tang, "Inter-cell interference coordination for LTE systems," *IEEE Transactions on Vehicular Technology*, vol. 62, no. 9, pp. 4408 – 4420, November 2013.
121. J.-P. Niu, D.-W. Lee, T. Su, G. Y. Li, and X.-F. Ren, "User classification and scheduling in LTE downlink systems with heterogeneous user mobility," *IEEE Transactions on Wireless Communications*, vol. 12, no. 12, pp. 6205 – 6213, December 2013.
122. Y.-S. Liu, G. Y. Li, H.-J. Hu, and Z.-H. Tan, "MAP based iterative channel estimation for OFDM systems: approach, convergence, and performance bound," *IEEE Transactions on Wireless Communications*, vol. 13, no. 1, pp. 476 – 485, January 2014.
123. Z.-K. Xu, C.-Y. Yang, G. Y. Li, Y.-L. Liu, and S.-G. Xu, "Energy-efficient CoMP precoding in heterogeneous networks," *IEEE Transactions on Signal Processing*, vol. 62, no. 4, pp. 1005 – 1017, February 2014.
124. L. Lu, G. Y. Li, and A. Maaref, "Spatial-frequency signal alignment for opportunistic transmission," *IEEE Transactions on Signal Processing*, vol. 62, no. 6, pp. 1561 – 1575, March 2014.
125. C. Xiong, L. Lu, and G. Y. Li, "Energy-efficient spectrum access in cognitive radio," *IEEE Journal on Selected Areas in Communications*, vol. 32, no. 3, pp. 550 – 562, March 2014.

126. C.-L. He, G. Y. Li, F.-C. Zheng and X.-H. You, “Energy-efficient resource allocation in OFDM systems with distributed antennas,” *IEEE Transactions on Vehicular Technology*, vol. 63, no. 3, pp. 1223 – 1230, March 2014.
127. D.-Q. Feng, L. Lu, Y. Yuan-Wu, G. Y. Li, S.-Q. Li, and G. Feng, “Device-to-device communications in cellular networks,” *IEEE Communications Magazine*, vol. 52, no. 4, pp. 49 – 55, April 2014. (*Web of Science* highly cited paper, in best readings at <http://www.comsoc.org/best-readings>, and once among top 100 documents downloaded of all papers in 300 journals in *IEEE Xplore*)
128. C. Xiong, G. Y. Li, L. Lu, D.-Q. Feng, Z. Ding, and H. Mitchell, “Spectrum trading for efficient utilization,” *EAI Endorsed Transactions on Wireless Spectrum*, vol. 1, issue 1, pp. 1 – 15, April 2014.
129. J.-P. Niu, D.-W. Lee, T. Su, G. Y. Li, and X.-F. Ren, “Joint transmission mode selection and scheduling in LTE downlink MIMO systems,” *IEEE Wireless Communications Letters*, vol. 3, no. 2, pp. 173 – 176, April 2014.
130. L. Lu, G. Y. Li, A. Maaref, and R.-G. Yao, “Opportunistic transmission exploiting frequency- and spatial-domain degrees of freedom,” *IEEE Wireless Communications*, vol. 21, no. 2, pp. 91-97, April 2014.
131. G. Y. Li, J.-P. Niu, J.-C. Fan, D.-W. Lee, X.-L. Zhu, and Y.-S. Fu, “Multi-cell coordinated scheduling and MIMO in LTE,” *IEEE Communications Surveys and Tutorials*, vol. 16, no. 2, pp. 761-775, the 2nd Quarter 2014.
132. G.-B. Lim, C. Xiong, L. J. Cimini, Jr., and G. Y. Li, “Energy-efficient resource allocation for OFDMA-based multi-RAT networks,” *IEEE Transactions on Wireless Communications*, vol. 13, no. 5, pp. 2696 – 2705, May 2014.
133. Y.-S. Liu, G. Y. Li, H.-J. Hu, and Z.-H. Tan, “MAP based iterative channel estimation for OFDM with multiple transmit antennas over time-varying channels,” *IEEE Transactions on Wireless Communications*, vol. 13, no. 9, pp. 5084 – 5094, September 2014.
134. L. Lu, G. Y. Li, L. A. Swindlehurst, A. Ashikhmin, and R. Zhang, “An overview of massive MIMO: benefits and challenges,” *IEEE Journal on Selected Topics in Signal Processing*, vol. 8, no. 5, pp. 742 – 758, October 2014. (in best readings at <http://www.comsoc.org/best-readings>, once among top 100 documents downloaded of all papers in 300 journals in *IEEE Xplore*, and 2017 *IEEE Donald G. Fink Overview Paper Award*)
135. Y.-S. Liu, Z.-H. Tan, H.-J. Hu, L. J. Cimini, Jr., and G. Y. Li, “Channel estimation for OFDM,” *IEEE Communications Surveys and Tutorials*, vol. 16, no. 4, pp. 1891-1908, the 4th Quarter 2014.
136. L. Lu, G. Y. Li, and A. Maaref, “Nullspacing releasing for spatial-frequency opportunistic transmission,” *IEEE Communications Letters*, vol. 18, no. 10, pp. 1843-1846, October 2014.
137. G.-D. Yu, L.-K. Xu, D.-Q. Feng, R. Yin, G. Y. Li, and Y.-K. Jiang, “Joint mode selection and resource allocation for device-to-device communications,” *IEEE Transactions on Communications*, vol. 62, no. 11, pp. 3814-3824, November 2014. (*Web of Science* highly cited paper and in best readings at <http://www.comsoc.org/best-readings>)
138. J.-C. Fan, D.-W. Lee, G. Y. Li, Q.-Y. Yin, and L.-L. Li, “Multiuser scheduling and pairing with interference mitigation for LTE uplink cellular networks,” *IEEE Transactions on Vehicular Technology*, vol. 64, no. 2, pp. 481-492, February 2015.
139. J.-C. Fan, Z.-K. Xu, and G. Y. Li, “Performance analysis of MU-MIMO with in downlink cellular networks,” *IEEE Communications Letters*, vol. 19, no. 2, pp. 223-226, February 2015.
140. R. Yin, G.-D. Yu, H.-Z. Zhang, and G. Y. Li, “Pricing-based interference coordination for D2D communications in cellular networks,” *IEEE Transactions on Wireless Communications*, vol. 14, no. 3, pp. 1519-1532, March 2015. (in best readings at <http://www.comsoc.org/best-readings>)
141. G. Wu, C.-Y. Yang, S.-Q. Li, and Y. G. Li, “Recent Advances in energy-efficient networks and its application in 5G systems,” *IEEE Wireless Communications*, vol. 22, no. 2, pp. 145-151, April 2015.
142. Y.-S. Liu, G. Y. Li, Z.-H. Tan, H.-J. Hu, “Noise power estimation in SC-FDMA systems,” *IEEE Wireless Communications Letters*, vol. 4, no. 2, pp. 217-220, April 2015.
143. C. Lin and G. Y. Li, “Indoor Terahertz communications: How many antenna arrays are needed?” *IEEE Transactions on Wireless Communications*, vol. 14, no. 6, pp. 3097-3107, June 2015.

144. G.-D. Yu, Q.-M. Chen, R. Yin, H.-Z. Zhang, and G. Y. Li, "Joint downlink and uplink resource allocation for energy-efficient carrier aggregation," *IEEE Transactions on Wireless Communications*, vol. 14, no. 6, pp. 3207-3218, June 2015.
145. L. Lu, D.-W. He, G. Y. Li, and X.-X. Yu, "Graph-based robust resource allocation for cognitive radio networks," *IEEE Transactions on Signal Processing*, vol. 63, no. 14, pp. 3825-3836, July 2015.
146. C. Lin and G. Y. Li, "Adaptive beamforming and resource allocation for distance-aware indoor Terahertz communications," *IEEE Transactions on Communications*, vol. 63, no. 8, pp. 2985-2995, August 2015.
147. C. Xiong, L. Lu, and G. Y. Li, "Energy-efficient OFDMA based two-way relay," *IEEE Transactions on Communications*, vol. 63, no. 9, pp. 3157-3169, September 2015.
148. G.-D. Yu, Y.-H. Jiang, L.-K. Xu, and G. Y. Li, "Multi-objective energy-efficient resources allocation for multi-RAT heterogeneous networks," *IEEE Journal on Selected Areas in Communications*, vol. 33, no. 10, pp. 2118-2127, October 2015.
149. C.-L. He, G. Y. Li, F.-C. Zheng, and X.-H. You, "Power allocation criteria for distributed antenna systems," *IEEE Transactions on Vehicular Technology*, vol. 64, no. 11, pp. 5083-5090, November 2015.
150. W. Xu, Y.-K. Cui, H. Zhang, G. Y. Li, and X.-H. You, "Robust beamforming with partial CSI for energy efficient networks," *IEEE Journal on Selected Areas in Communications*, vol. 33, no. 12, pp. 2920-2935, December 2015.
151. D.-Q. Feng, G.-D. Yu, C. Xiong, Y. Yuan-Wu, G. Y. Li, G. Feng, and S.-Q. Li, "Mode switching for energy-efficient device-to-device communications in cellular networks," *IEEE Transactions on Wireless Communications*, vol. 14, no. 12, pp. 6693-7002, December 2015.
152. L. Chang, G. Y. Li, and J.-C. Li, "Blind parameter estimation of GFDM signals over frequency-selective fading channels," *IEEE Transactions on Communications*, vol. 64, no. 3, pp. 1120-1131, March 2016.
153. Q.-M. Chen, G.-D. Yu, R. Yin, A. Maaref, G. Y. Li, and A.-P. Huang, "Energy efficiency optimization in licensed-assisted access," *IEEE Journal of Selected Areas in Communications*, vol. 34, no. 4, pp. 723-734, April 2016.
154. R.-G. Yao, Y.-S. Liu, L. Lu, G. Y. Li, Z.-H. Tan, and A. Maaref, "Cooperative precoding for cognitive transmission in two-tier networks," *IEEE Transactions on Communications*, vol. 64, no. 4, pp. 1423-1436, April 2016.
155. Q.-M. Chen, G.-D. Yu, H.-G. Shan, A. Maaref, G. Y. Li, and A.-P. Huang, "Cellular meets WiFi: traffic offloading or resource sharing?" *IEEE Transactions on Wireless Communications*, vol. 15, no. 5, pp. 3354-3367, May 2016.
156. D.-L. Qiao, H.-F. Qian, and G. Y. Li, "Broadbeam for massive MIMO systems," *IEEE Transactions on Signal Processing*, vol. 64, no. 9, pp. 2365-2374, May 2016.
157. D.-W. Lee, G. Y. Li, X.-L. Zhu, and Y.-S. Fu, "Multistream multiuser coordinated beamforming for cellular networks with multiple receive antenna," *IEEE Transactions on Vehicular Technology*, vol. 65, no. 5, pp. 3072-3085, May 2016.
158. C. Lin and G. Y. Li, "Energy-efficient design of antenna arrays for indoor mmWave and sub-Thz communications," *IEEE Transactions on Wireless Communications*, vol. 15, no. 7, pp. 4660-4672, July 2016.
159. Y.-S. Liu, G. Y. Li, and W. Han, "Low-complexity recursive convolutional precoding for OFDM-based large-scale antenna systems," *IEEE Transactions on Wireless Communications*, vol. 15, no. 7, pp. 4902-4913, July 2016.
160. Q.-M. Chen, G.-D. Yu, A. Maaref, G. Y. Li, and A.-P. Huang, "Rethinking mobile traffic offloading in LTE in unlicensed networks," *IEEE Transactions on Wireless Communications*, vol. 15, no. 7, pp. 4987-5000, July 2016.
161. S. Xiao, X.-W. Zhou, D.-Q. Feng, Y. Yuan-Wu, G. Y. Li, and W. Guo, "Energy-efficient mobile association in device-to-device-enabled heterogeneous networks," *IEEE Transactions on Wireless Communications*, vol. 15, no. 8, pp. 5260-5271, August 2016.
162. D.-Q. Feng, L. Lu, Y. Yuan-Wu, G. Y. Li, G. Feng, and S.-Q. Li, "OoS-Aware resource allocation for device-to-device communications with channel uncertainty," *IEEE Transactions on Vehicular Technology*, vol. 65, no. 8, pp. 6051-6062, August 2016.

163. Q.-M. Chen, G.-D. Yu, R. Yin, and G. Y. Li, "Energy efficient user association and resource allocation for multi-stream aggregation systems," *IEEE Transactions on Vehicular Technology*, vol. 65, no. 8, pp. 6366-6376, August 2016.
164. W. Guo, J.-C. Fan, G. Y. Li, Q.-Y. Yin, X.-L. Zhu, and Y.-S. Fu, "MIMO Transmission with vertical vectorization for LTE-A downlink," *IEEE Wireless Communications Letters*. Vol. 5, no. 4, pp.372-375, August 2016.
165. R. Yin, G.-D. Yu, A. Maaref, and G. Y. Li, "A framework for co-channel interference and collision probability tradeoff in LTE licensed-assisted access (LAA) networks," *IEEE Transactions on Wireless Communications*, vol. 15, no. 9, pp. 6078-6090, September 2016.
166. L. Chang, J.-C. Li, and G. Y. Li, "Closed-form SNR estimation for MPSK signals in Nakagami fading channels," *IEEE Transactions on Vehicular Technology*, vol. 65, no. 9, pp. 6878-6887, September 2016.
167. G.-D. Yu, L.-K. Xu, D.-Q. Feng, Z.-Y. Zhang, G. Y. Li, and H.-Z. Zhang, "Energy efficiency tradeoff in interference channels," *IEEE Access*, pp.4495-4508, vol. 4, 2016.
168. R. Yin, G.-D. Yu, A. Maaref, and G. Y. Li, "LBT based adaptive channel access for LTE-U systems," *IEEE Transactions on Wireless Communications*, vol. 15, no. 10, pp. 6585-6597, October 2016.
169. Y.-J. Liu, L. Lu, G. Y. Li, W. Han, and Q.-M. Cui, "Joint user association and spectrum allocation for massive MIMO HetNets with wireless backhubs," *IEEE Wireless Communications Letters*, vol. 5, no. 5, pp. 496-499, October 2016.
170. C. Lin and G. Y. Li, "Terahertz communications: array-of-subarray solution," *IEEE Communications Magazine*, vol. 54, no. 12, pp. 124-131, December 2016.
171. Q.-Q. Wu, G. Y. Li, W. Chen, D. W. Kwan, and W. K. Ng, "Energy-efficient small cell with spectrum-power trading," *IEEE Journal of Selected Areas in Communications*, vol. 34, no. 12, pp. 3394-3408, December 2016.
172. W. Guo, J.-C. Fan, G. Y. Li, Q.-Y. Yin, and X.-L. Zhu, "Adaptive SU/MU-MIMO scheduling schemes for LTE-A downlink transmission," *IET Communications*, December 2016.
173. S.-Q. Zhang, Q.-Q. Wu, S.-G. Xu, and G. Y. Li, "Fundamental green tradeoffs: progresses, challenges and impacts on 5G networks," *IEEE Communications Surveys and Tutorials*, vol. 19, no. 1, pp. 33-56, First Quarter, 2017. (*Web of Science highly cited paper* and in *best readings* at <http://www.comsoc.org/best-readings>)
174. D.-Z. Wen, G.-D. Yu, R.-P. Li, Y. Chen, and G. Y. Li, "Results on energy- and spectral-efficiency tradeoff in full-duplex enabled base stations," *IEEE Transactions on Wireless Communications*, vol. 16, no. 3, pp. 1494-1507, March 2017
175. J.-C. Fan, S.-J. Gao, X.-W. Zhou, Y.-J. Ren, G. Y. Li, and X. Chen, "Faster-than-Nyquist signaling: an overview," *IEEE Access*, vol. 5, pp. 1925-1940, 2017.
176. R.-P. Li, Y. Chen, G. Y. Li, and G.-Y. Liu, "Full duplex cellular networks" *IEEE Communications Magazine*, vol. 55, no. 4, pp. 184-191, April 2017.
177. Y.-S. Liu, G. Y. Li, and W. Han, "Quantization and feedback of covariance matrix for massive MIMO systems with cascaded precoding," *IEEE Transactions on Communications*, vol. 65, no. 4, pp. 1623-1634, April 2017.
178. Y.-S. Liu, G. Y. Li, and W. Han, "D2D enabled cooperation in massive MIMO systems with cascaded precoding," *IEEE Wireless Communications Letters*, vol. 6, no. 2, pp. 238-241, April 2017.
179. Q.-Q. Wu, G. Y. Li, W. Chen, D. W.-K. Ng, F. Wang, "Energy-efficient D2D overlaying communications with spectrum-power trading," *IEEE Transactions on Wireless Communications*, vol. 16, no. 7, pp. 4404-4419, July 2017.
180. L. Liang, G. Y. Li, and W. Xu, "Resource allocation for D2D-enabled vehicular communications," *IEEE Transactions on Communications*, vol. 65, no. 7, pp. 3186-3197, July 2017. (in *best readings* at <http://www.comsoc.org/best-readings>, *Web of Science highly cited paper*)
181. L. You, X.-Q. Gao, G. Y. Li, X.-G. Xia, and N. Ma, "BDMA for millimeter-wave/Terahertz massive MIMO transmission with per-beam synchronization," *IEEE Journal of Selected Areas in Communications*, vol. 35, no. 7, pp. 1550-1563, July 2017.

182. Q.-Q. Wu, G. Y. Li, W. Chen, D. W. K. Ng, and R. Schober, “An overview of sustainable green 5G networks,” *IEEE Wireless Communications*, vol. 24, no. 4, pp. 72 – 80, August 2017. (*Web of Science* highly cited paper and in best readings at <http://www.comsoc.org/best-readings>)
183. L. Liang J.-B. Kim, S. C. Jha, K. Sivanesan, and G. Y. Li, “Spectrum and power allocation for vehicular communications with CSI latency,” *IEEE Wireless Communications Letters*, vol. 6, no. 4, pp. 458-461, August 2017.
184. X.-F. Zhai, Y.-L. Cai, Q.-J. Shi, M.-J. Zhao, G. Y. Li, and B. Champagne, “Joint transceiver design with antenna selection for large-scale MU-MIMO millimeter-wave systems,” *IEEE Journal of Selected Areas in Communications*, vol. 35, no. 9, pp. 2085 – 2096, September 2017.
185. C. Lin, G. Y. Li, and L. Wang, “Subarray-based coordinated beamforming training for mmWave and sub-THz communications,” *IEEE Journal of Selected Areas in Communications*, vol. 35, no. 9, pp. 2155 – 2126, September 2017.
186. Y.-L. Cai, Y. Gao, Q.-J. Shi, B. Champagne, G. Y. Li, “Joint transceiver design for secure downlink communications over an amplify-and-forward MIMO relay,” *IEEE Transactions on Communications*, vol. 65, no. 9, pp. 3691 – 3704, September 2017.
187. L. Liang, G. Y. Li, and W. Xu, “Corrections to “Resource allocation for D2D-enabled vehicle communications”,,” *IEEE Transactions on Communications*, vol. 65, no. 9, pp. 4096 – 4098, September 2017.
188. L. Zhang, Y.-L. Cai, Q.-J. Shi, G.-D. Yu, and G. Y. Li, “Cost efficiency cellular networks powered by micro-grids,” *IEEE Transactions on Wireless Communications*, vol. 16, no. 9, pp. 6047-6061, September 2017.
189. H. Lin, F.-F. Gao, S. Jin, and G. Y. Li, “A new view of multi-user hybrid massive MIMO: non-orthogonal angle division multiple access,” *IEEE Journal of Selected Areas in Communications*, vol. 35, no. 10, pp. 2268 – 2280, October 2017.
190. B.-Y. Di, L.-Y. Song, Y.-H. Li, and G. Y. Li, “Non-orthogonal multiple access for high-reliable and low-latency V2X communications in 5G systems,” *IEEE Journal of Selected Areas in Communications*, vol. 35, no. 10, pp. 2383 – 2397, October 2017.
191. J.-P. Niu, G. Y. Li, Y.-Y. Li, D.-Y. Fang, and X. Li, “Joint 3D beamforming and resource allocation for small cell wireless backhaul in HetNets,” *IEEE Communications Letters*, vol. 21, no. 10, pp. 2286 - 2289, October 2017.
192. S. Xiao, X.-W. Zhou, Y. Yuan-Wu, G. Y. Li, and W. Guo, “Robust resource allocation in two-tier full-duplex-enabled femtocell networks,” *IEEE Transactions on Wireless Communications*, vol. 16, no. 10, pp. 6382-6394, October 2017.
193. G.-D. Yu, Z.-H. Zhang, F.-Z. Qu, and G. Y. Li, “Ultra-dense heterogeneous networks with full-duplex small cell base stations,” *IEEE Network*, vol. 31, no. 6, pp. 108 – 114, November/December 2017.
194. L. Liang, H.-X. Peng, G. Y. Li, and X. M. Shen, “Vehicular communications: a physical layer perspective,” *IEEE Transactions on Vehicular Technology*, vol. 66, no. 12, pp. 10647-10659, December 2017.
195. H.-L. Zhang, L.-Y. Song, Y.-H. Li, and G. Y. Li, “Hypergraph theory: applications in heterogeneous ultra-dense 5G networks,” *IEEE Communications Magazine*, vol. 55, No. 12, pp. 70 – 76, December 2017.
196. P.-H. Dong, H. Zhang, W. Xu, G. Y. Li, and X. H. Yu “Performance analysis of multiuser massive MIMO with spatially correlated channels using low-precision ADC,” *IEEE Communications Letters*, vol. 22, no. 1, pp. 205 – 208, January 2018.
197. J.-P. Niu, G. Y. Li, Y.-Y. Li, D.-Y. Fang, X.-J. Chen, J. Zheng, and X. Li, “Resource allocation in reverse TDD wireless backhaul HetNets with 3D massive antennas,” *IEEE Wireless Communications Letters*, vol. 7, no. 1, pp. 30 – 33, February 2018
198. H. Ye, G. Y. Li, and B.-H. F. Juang, “Power of deep learning for channel estimation and signal detection in OFDM systems,” *IEEE Wireless Communications Letters*, vol. 7, no. 1, pp. 114 – 117, February 2018. (*Web of Science* highly cited paper, in best readings at <http://www.comsoc.org/best-readings>, once among top 100 documents downloaded of all papers in 300 journals in *IEEE Xplore*, once the most popular article of all papers in the journal)

199. L. Lu, D.-W. He, Q.-X. Xie, G. Y. Li, X.-X. Yu, “Graph-based path selection and power allocation for DF relay-aided transmission,” *IEEE Wireless Communications Letters*, vol. 7, no. 1, pp. 138 – 141, February 2018.
200. Y.-L. Cai, Z.-J. Qin, F.-Y. Cui, G. Y. Li, and J. A. McCann, “Modulation and multiple access for 5G networks,” *IEEE Communications Surveys and Tutorials*, vol. 20, no. 1, pp. 629-646, First Quarter, 2018. (*Web of Science* highly cited paper, in best readings at <http://www.comsoc.org/best-readings>)
201. Z.-J. Zheng, L.-Y. Song, Z. Han, G. Y. Li, and V. H. Poor, “Game theoretic approaches to massive data processing in wireless networks,” *IEEE Wireless Communications*, vol. 25, no. 1, pp. 98 – 104, February 2018.
202. R. Yin, G. Y. Li, and A. Maaref, “Spatial reuse for coexisting LTE and WiFi systems in unlicensed spectrum,” *IEEE Transactions on Wireless Communications*, vol. 17, no. 2, pp. 1187 – 1198, February 2018.
203. Z.-J. Qin, J.-C. Fan, Y.-W. Liu, Y. Gao, and G. Y. Li, “Sparse representation for wireless communications, a compressive sensing approach” *IEEE Signal Processing Magazine*, vol. 35, no. 3, pp. 40 – 58, May 2018.
204. H. Ye, L. Liang, G. Y. Li, L. Lu, J.-B. Kim, and M. Wu, “Machine learning for vehicular networks: Recent advances and application examples,” *IEEE Vehicular Technology Magazine*. vol. 13, no. 2, pp. 94 – 101, June 2018. (*Web of Science* highly cited paper, once the most popular article of all papers in the journal from *IEEE Xplore*)
205. B.-L. Wang, F.-F. Gao, S. Jin, H. Lin, and G. Y. Li, “Spatial- and frequency-wideband effects in massive MIMO,” *IEEE Transactions on Signal Processing*, vol. 66, no. 13, pp. 3393 – 3406, July 2018. (*Web of Science* highly cited paper)
206. L. Liang, S.-J. Xie, G. Y. Li, Z. Ding, and X.-X. Yu, “Graph-based resource sharing for vehicular communication,” *IEEE Transactions on Wireless Communications*, vol. 17, no. 7, pp. 4579 – 4592, July 2018.
207. X.-Y. Sun, X.-Q. Gao, G. Y. Li, and W. Han, “Single-site localization based on a new type of fingerprint for massive MIMO-OFDM systems,” *IEEE Transactions on Vehicular Technology*, vol. 67, no. 7, pp. 6134 – 6145, July 2018.
208. Y.-L. Cai, C.-Z. Zhao, Q.-J. Shi, G. Y. Li, and B. Champagne, “Joint beamforming and jamming for mmWave information surveillance systems,” *IEEE Journal on Selected Areas in Communications*, vol. 36, no. 7, pp. 1410 – 1425, July 2018.
209. Z.-J. Zhang, L.-Y. Song, Z. Han, G. Y. Li, and V. H. Poor, “Game theory for big data processing: multi-leader and multi-follower game-based ADMM,” *IEEE Transactions on Signal Processing*, vol. 66, no. 15, pp. 3933 – 3945, August 2018.
210. Z.-J. Zheng, L.-Y. Song, Z. Han, G. Y. Li, and V. H. Poor, “Fast Stackelberg game for proactive caching in large-scale mobile edge networks,” *IEEE Transactions on Wireless Communications*, vol. 17, no. 8, pp. 5198 – 5211, August 2018.
211. Y.-L. Cai, F.-Y. Cui, Q.-J. Shi, M.-J. Zhao, and G. Y. Li, “Dual-UAV enabled secure communications: joint trajectory design and user scheduling,” *IEEE Journal on Selected Areas in Communications*, vol. 36, no. 9, pp. 1972 – 1985, September 2018.
212. H.-T. He, C.-K. Wen, S. Jin, and G. Y. Li, “Deep learning-based channel estimation for beamspace mmwave massive MIMO systems,” *IEEE Wireless Communications Letters*, vol. 7, no. 5, pp. 852 – 855, October 2018. (in best readings at <http://www.comsoc.org/best-readings>, *Web of Science* highly cited paper)
213. R. Yin, Y.-F. Zhang, and G. Y. Li, “Energy efficiency in LTE-U based small cell systems,” *IEEE Access*, vol. 6, pp. 64050 – 64062, December 2018.
214. X.-X. Gao, C.-K. Wen, S. Jin, and G. Y. Li, “ComNet: Combination of deep learning with expert knowledge in OFDM,” *IEEE Communications Letters*, vol. 22, no. 12, pp. 2627 – 2630, December 2018.
215. M.-Y. Lee, Y.-H. Xiong, G.-D. Yu, and Y. G. Li, “Deep neural networks for linear sum assignment problems,” *IEEE Wireless Communications Letters*, vol. 7, no. 6, pp. 962 – 965, December 2018.
216. X.-W. Zhou, M.-X. Sun, G. Y. Li, and B.-H. F. Juang, “Intelligent wireless communications enabled by cognitive radio and machine learning,” *China Communications*, pp. 16 – 48, December 2018.

217. B.-L. Wang, F.-F. Gao, S. Jin, G. Y. Li, S. Sun, and T. S. Rappaport, "Spatial-wideband effect in massive MIMO with application to mmWave systems," *IEEE Communications Magazine*, vol. 56, no. 12, pp. 134 – 141, December 2018.
218. Y.-W. Huang, Y. Liu, and G. Y. Li, "Energy efficiency of distributed antenna systems with wireless power transfer," *IEEE Journal on Selected Areas in Communications*, vol. 37, no. 1, pp. 89 – 99, January 2019.
219. B.-Y. Di, H.-L. Zhang, L.-Y. Song, Y.-H. Li, G. Y. Li, H. V. Poor, "Ultra-dense LEO: Integrating terrestrial-satellite networks into 5G for data offloading," *IEEE Transactions on Wireless Communications*, vol. 18, no. 1, pp. 47-62, January 2019.
220. C.-J. Zheng, D.-Q. Feng, S.-L. Zhang, X.-G. Xia, G.-B. Qian, and G. Y. Li, "Energy efficient V2X-enabled communications in cellular networks," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 1, pp. 554-564, January 2019.
221. J.-D. Xu, W. Xu, H. Zhang, G. Y. Li, and X.-H. You, "Performance analysis of multi-cell millimeter wave MIMO network with low-precision ADCs," *IEEE Transactions on Communications*, vol. 67, no. 1, pp. 301-317, January 2019.
222. L. Liang, H. Ye, and G. Y. Li, "Toward intelligent vehicular networks: a machine learning framework," *IEEE Internet of Things Journal*, vol. 6, no. 1, pp. 124 -135, February 2019. (*Web of Science* highly cited paper, in best readings at <http://www.comsoc.org/best-readings>)
223. X.-Y. Sun, C.-H. Qi, and G. Y. Li, "Beam training and allocation for multiuser millimeter wave massive MIMO systems," *IEEE Transactions on Wireless Communications*, vol. 18, no. 2, pp. 1041-1053, February 2019.
224. H.-X. Peng, L. Liang, X.-M. Shen, and G. Y. Li, "Vehicular communications: a network layer perspective," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 2, pp. 1064-1078, February 2019. (*Web of Science* highly cited paper)
225. Y.-W. Liu, Z.-J. Qin, Y.-L. Cai, Y. Gao, G. Y. Li, and A. Nallanathan, "UAV communications based on non-orthogonal multiple access," *IEEE Wireless Communications*, vol. 26, no. 1, pp. 52-57, February 2019. (in best readings at <http://www.comsoc.org/best-readings>, *Web of Science* highly cited paper)
226. A. Frøytlog, T. Foss, O. Bakker, G. Jevne, M. A. Haglund, F. Y. Li, J. Oller, and G. Y. Li, "Ultra-low power wake-up radio for 5G IoT," *IEEE Communications Magazine*, vol. 27, no. 3, pp. 111 -117, March 2019.
227. H. Ye, G. Y. Li, B.-H. F. Juang, "Deep reinforcement learning based resource allocation for V2V communications," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 4, pp. 3163-3173, April 2019. (once the most popular article of all papers in the journal from *IEEE Xplore*, *Web of Science* highly cited paper, in best readings at <http://www.comsoc.org/best-readings>)
228. P.-H. Dong, H. Zhang, Wei Xu, and G. Y. Li, "Coexistence of direct and relayed transmission users in multi-cell massive MIMO systems," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 4, pp. 3728-3746, April 2019.
229. Z.-J. Qin, H. Ye, G. Y. Li, and B.-H. Juang, "Deep learning in physical layer communications," *IEEE Wireless Communications*, vol. 26, no. 2, pp. 93-99, April 2019. (*Web of Science* highly cited paper & hot paper, in best readings at <http://www.comsoc.org/best-readings>, 2022 IEEE ComSoc Fred W. Ellersick Prize Paper Award)
230. C.-T. Guo, L. Liang, and G. Y. Li, "Resource allocation for low-latency vehicular communications: an effective capacity perspective," *IEEE Journal on Selected Areas in Communications*, vol. 37, no. 4, pp. 905-917, April 2019.
231. Y.-H. Ge, W.-L. Zhang, F.-F. Gao, and G. Y. Li, "Frequency synchronization for uplink massive MIMO with adaptive MUI suppression," *IEEE Transactions on Signal Processing*, vol. 67, no. 8, pp. 2143 – 2158, April 2019.
232. T.-Q. Wang, C.-K. Wen, S. Jin, and G. Y. Li, "Deep learning-based CSI feedback approaches for time-varying massive MIMO channels," *IEEE Wireless Communications Letters*, vol. 8, No. 2, pp. 416-419, April 2019. (*Web of Science* highly cited paper)

233. Q.-Y. Hu, Y.-L. Cai, G.-D. Yu, Z.-J. Qin, M.-J. Zhao, and G. Y. Li, "Joint offloading and trajectory design for UAV-enabled mobile edge computing systems," *IEEE Internet of Things Journal*, vol. 6, no. 2, pp. 1897-1892, April 2019. (*Web of Science* highly cited paper)
234. M. A. ElMossallamy, M. Pan, R. Jäntti, K. G. Seddik, G. Y. Li, Z. Han, "Noncoherent backscatter communications over ambient OFDM signals," *IEEE Transactions on Communications*, vol. 67, no. 5, pp. 3597-3611, May 2019.
235. J.-K. Ren, G.-D. Yu, Y.-H. He, and G. Y. Li, "Collaborative cloud and edge computing for latency minimization," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 5, pp. 5031-5044, May 2019. (*Web of Science* highly cited paper)
236. F.-Y. Cui, Z.-J. Qin, Y.-L. Cai, M.-J. Zhao, and G. Y. Li, "Rethinking outage constraints for resource management of NOMA networks," *IEEE Journal on Selected Topics in Signal Processing*, vol. 13, no. 3, pp. 423-435, June 2019.
237. B.-Y. Di, L.-Y. Song, Y. H. Li, and G. Y. Li, "TCM-NOMA: Joint multi-user codeword design and detection in trellis coded modulation-based NOMA for beyond 5G," *IEEE Journal on Selected Topics in Signal Processing*, vol. 13, no. 3, pp. 766-780, June 2019.
238. Z.-J. Qin, F. Y. Li, G. Y. Li, J. A. McCann, and Q. Ni, "Low-power wide-area networks for sustainable IoT," *IEEE Wireless Communications*, vol. 26, no. 3, pp. 140-145, June 2019.
239. J.-P. Niu and G. Y. Li, "An overview on backscatter communications," *Journal of Communications and Information Networks*, vol. 4, no. 2, pp.1 - 14, June 2019.
240. C.-W. Xing, X. Zhao, W. Xu, X.-D. Dong, and G. Y. Li, "A framework on hybrid MIMO transceiver design based on matrix-monotonic optimization," *IEEE Transactions on Signal Processing*, vol. 67, no. 13, pp. 3531-3546, July 2019.
241. F.-Y. Cui, Y.-L. Cai, Z.-J. Qin, Q.-J. Shi, M.-J. Zhao, and G. Y. Li, "Multiple access for mobile-UAV enabled networks: joint trajectory design and resource allocation," *IEEE Transactions on Communications*, vol. 67, no. 7, pp. 4980 - 4994, July 2019.
242. C.-T. Guo, L. Liang, and G. Y. Li, "Resource allocation for high-reliability low-latency vehicular communications with packet retransmission," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 7, pp. 6219 - 6230, July 2019.
243. J. Zhang, C.-K. Wen, S. Jin, G. Y. Li, "Artificial intelligence-aided receiver for a CP-free OFDM system: Design, simulation, and experimental test," *IEEE Access*, vol. 7, no. 1, pp. 58901-58914, December 2019.
244. J.-Q. Liu, G. Wu, S. Xiao, X.-W. Zhou, Y. G. Li, S. Guo, and S.-Q. Li, "Joint power allocation and user scheduling for device-to-device-enabled heterogeneous networks with non-orthogonal multiple access," *IEEE Access*, vol. 7, no. 1, pp. 62657-62671, December 2019.
245. X.-Y. Sun, X.-Q. Gao, G. Y. Li, and W. Han, "Agglomerative user clustering and downlink group scheduling for FDD massive MIMO systems," *IEEE Access*, vol. 7, no. 1, pp. 86522 - 86533, December 2019.
246. C.-T. Guo, L. Liang, and G. Y. Li, "Resource allocation for vehicular communications with low latency and high reliability," *IEEE Transactions on Wireless Communications*, vol. 18, no. 8, pp. 3887 - 3902, August 2019.
247. Z.-J. Qin, Y.-W. Liu, G. Y. Li, and J. A. McCann, "Performance analysis of clustered low-power wide-area networks," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 8, pp. 7616 - 7629, August 2019.
248. C.-T. Guo, L. Liang, and G. Y. Li, "Resource allocation for V2X communications: a large deviation theory perspective," *IEEE Wireless Communications Letters*, vol. 8, no. 4, pp. 1108 - 1111, August 2019.
249. P.-H. Dong, H. Zhang, G. Y. Li, N. Naderialzadeh, and I. S. Gaspar, "Deep CNN based channel estimation for mmwave massive MIMO Systems," *IEEE Journal on Selected Topics in Signal Processing*, vol. 13, no. 5, pp. 989 - 1000, September 2019. (in best readings at <http://www.comsoc.org/best-readings>)
250. H.-T. He, S. Jin, C.-K. Wen, F.-F. Gao, G. Y. Li, and Z.-B. Xu, "Model-driven deep learning for physical layer communications," *IEEE Wireless Communications*, vol. 26, no. 5, pp. 77 - 83, October 2019. (in best readings at <http://www.comsoc.org/best-readings>, *Web of Science* highly cited paper)

251. L. Liang, H. Ye, and G. Y. Li, "Spectrum sharing in vehicular networks based on multi-agent reinforcement learning," *IEEE Journal on Selected Areas in Communications*, vol. 37, no. 10, pp. 2282 - 2292, October 2019. (*Web of Science highly cited paper, in best readings at <http://www.comsoc.org/best-readings>*)
252. J.-C. Fan, S.-S. Chen, X.-M. Luo, Y. Zhang, and G. Y. Li, "A machine learning approach for hierarchical localization based on multiple MIMO channel fingerprints," *IEEE Communications Letters*, vol. 23, no. 10, pp. 1765 - 1768, October 2019.
253. B.-L. Wang, X. Li, F.-F. Gao, and G. Y. Li, "Power leakage elimination for wideband mmwave massive MIMO: An energy focusing window approach," *IEEE Transactions on Signal Processing*, vol. 67, no. 21, pp. 5479 - 5494, November 2019.
254. S. Gao, P.-H. Dong, Z.-W. Pan, G. Y. Li, "Deep learning based channel estimation for massive MIMO with mixed resolution ADCs," *IEEE Communications Letters*, vol. 23, no. 11, pp. 1989 - 1993, November 2019.
255. Y.-W. Yang, F.-F. Gao, G. Y. Li, and M.-N. Jian, "Deep learning based downlink channel prediction for FDD massive MIMO systems," *IEEE Communications Letters*, vol. 23, no. 11, pp. 1994 - 1998, November 2019.
256. X.-Y. Sun, C. Wu, X.-Q. Gao, and G. Y. Li, "Fingerprint-based localization for massive MIMO-OFDM with deep convolutional neural networks," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 11, pp. 10846 - 10857, November 2019.
257. B.-L. Wang, M.-N. Jian, F.-F. Gao, G. Y. Li, and H. Lin, "Beam squint and channel estimation for millimeter-wave massive MIMO-OFDM systems," *IEEE Transactions on Signal Processing*, vol. 67, no. 23, pp. 5893 - 5908, December 2019.
258. R. Liu, G.-D. Yu, and G. Y. Li, "User association for ultra-dense mmwave networks with multi-connectivity: a multi-label classification approach," *IEEE Wireless Communications Letters*, vol. 8, no. 6, pp. 1579 - 1582, December 2019.
259. R. Liu, Q.-M. Chen, G.-D. Yu, and G. Y. Li, "Joint user association and resource allocation for multi-band millimeter-wave heterogeneous networks," *IEEE Transactions on Communications* vol. 67, no. 12, pp. 8502 - 8516, December 2019.
260. T.-K. Zhang, X.-Y. Fang, Y.-W. Liu, G. Y. Li, W.-J. Xu, "D2D-enabled mobile user edge caching: a multi-winner auction approach," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 12, pp. 12314 - 12328, December 2019.
261. R. Liu, Q.-M. Chen, G.-D. Yu, G. Y. Li, and Z. Ding "Resource management in LTE-U systems: past, present, and future," *IEEE Open Journal of Vehicular Technology*, vol. 1, no. 1, pp. 1-17, January 2020. (*once the most popular article of all papers in the journal from IEEE Xplore*)
262. K.-J. Chen, C.-H. Qi, and G. Y. Li, "Two-step codeword design for mmwave massive MIMO systems with quantized phase shifters," *IEEE Transactions in Signal Processing*, vol. 68, pp. 170 - 180, January 2020.
263. M.-Y. Lee, G.-D. Yu, and G. Y. Li, "Learning to branch: accelerating resource allocation in wireless networks," *IEEE Transactions on Vehicular Technology*, vol. 69, no. 1, pp. 958 - 970, January 2020.
264. L. Liang, H. Ye, G.-D. Yu, and G. Y. Li, "Deep learning based wireless resource allocation with application in vehicular networks," *the Proceedings of the IEEE*, vol. 108, no. 2, pp. 341 - 356, February 2020. (*Web of Science highly cited paper*)
265. Z.-J. Qin and G. Y. Li, "Pathway to intelligent radio," *IEEE Wireless Communications*, vol. 27, no. 1, pp. 9-15, February 2020.
266. S.-Q. Zhang, S.-G. Xu, G. Y. Li, and E. Ayanoglu, "First 20 years of green radios," *IEEE Transactions on Green Communications and Networks*, vol. 4, no. 1, pp.1-15, March 2020.
267. Z.-J. Qin, X.-W. Zhou, L. Zhang, Y. Gao, Y.-C. Liang, and G. Y. Li, "20 years of evolution from cognitive to intelligent communications," *IEEE Transactions on Cognitive Communications and Networking*, vol. 6, no. 1, pp. 6-20, March 2020.
268. H.-T. He, C.-K. Wen, S. Jin, and G. Y. Li, "Model-driven deep learning for MIMO detection," *IEEE Transactions on Signal Processing*, vol. 68, pp. 1702-1715, March 2020. (*Web of Science highly cited paper, in best readings at <http://www.comsoc.org/best-readings>*)

269. J.-J. Gao, C.-K. Wen, S. Jin, and G. Y. Li, "Convolutional neural network based multiple-rate compressive sensing for massive MIMO CSI feedback: design, simulation, and analysis," *IEEE Transactions on Wireless Communications*, vol. 19, no. 4, pp. 2827-2840, April 2020. (*Web of Science highly cited paper*)
270. H. Ye, L. Liang, G. Y. Li, and B.-H. F. Juang, "Deep learning-based end-to-end wireless communication systems with GAN as unknown channels," *IEEE Transactions on Wireless Communications*, vol. 19, no. 5, pp. 3133-3143, May 2020. (*Web of Science highly cited paper, in best readings at <http://www.comsoc.org/best-readings>*)
271. W.-Y. Ma, C.-H. Qi, and G. Y. Li, "High-resolution channel estimation for frequency-selective mmWave massive MIMO systems," *IEEE Transactions on Wireless Communications*, vol. 19, no. 5, pp. 3517-3529, May 2020.
272. S. Gao, P.-H. Dong, Z.-W. Pan, and G. Y. Li, "Reinforcement learning based cooperative coded caching under dynamic popularities in ultra-dense networks," *IEEE Transactions on Vehicular Technology*, vol. 69, no. 5, pp. 5442-5456, May 2020.
273. W.-Y. Ma, C.-H. Qi, and G. Y. Li, "Machine learning for beam alignment in millimeter wave MIMO," *IEEE Communications Letters*, vol. 9, no. 6, pp. 875-878, June 2020.
274. P.-H. Dong, H. Zhang, and G. Y. Li, "Framework on deep learning-based hybrid processing for mmWave massive MIMO," *IEEE Access*, vol. 8, n. 1, pp. 106023-106035, December 2020.
275. P.-H. Dong, H. Zhang, Q.-H. Wu, and G. Y. Li, "Spatially correlated massive MIMO relay systems with low-resolution ADCs," *IEEE Transactions on Vehicular Technology*, vol. 69, no. 6, pp. 6541-6553, June 2020.
276. L. Wang, H. Ye, L. Liang, and G. Y. Li, "Learn to compress CSI and allocate resources in vehicular networks," *IEEE Transactions on Communications*, vol. 68, no. 6, pp. 3640 – 3653, June 2020.
277. R. Liu, M.-Y. Lee, G.-D. Yu, and G. Y. Li, "User association for millimeter-wave networks: a machine learning approach," *IEEE Transactions on Communications*, vol. 68, no. 7, pp. 4162 – 4174, July 2020.
278. J.-Y. Liao, J.-H. Zhuo, F.-F. Gao, G. Y. Li, "A model-driven deep learning method for massive MIMO detection," *IEEE Communications Letters*, vol. 24, no. 8, pp. 1724 – 1728, August 2020.
279. H.-Y. Ye, F.-F. Gao, J. Qian, H. Wang, and G. Y. Li, "Deep learning based denoise network for CSI feedback in FDD massive MIMO systems," *IEEE Communications Letters*, vol. 24, no. 8, pp. 1742 – 1746, August 2020.
280. P.-Z. Liang, J.-C. Fan, W.-H. Shen, Z.-J. Qin, and G. Y. Li, "Deep learning and compressive sensing-based CSI feedback for FDD massive MIMO," *IEEE Transactions on Vehicular Technology*, vol. 69, no. 8, pp. 9217 – 9222, August 2020.
281. J.-J. Gao, J.-H. Wang, C.-K. Wen, S. Jin, and G. Y. Li, "Compression and acceleration of neural networks for communications," *IEEE Wireless Communications*, vol. 27, no. 4, pp. 110-117, August 2020.
282. M. A. ElMossallamy, H.-L. Zhang, L.-Y. Song, K. Seddik, Z. Han, and G. Y. Li, "Reconfigurable intelligent surfaces: misconceptions, challenges, and opportunities," *IEEE Transactions on Cognitive Communications and Networking*, vol. 3, no. 6, pp. 990-1002, September 2020. (*Web of Science highly cited paper*)
283. Q.-Y. Hu, Y.-L. Cai, A. Liu, G.-D. Yu, and G. Y. Li, "Low-complexity joint resource allocation and trajectory design for UAV-aided relay networks with segmented ray-tracing channel model," *IEEE Transactions on Wireless Communications*, vol. 19, no. 9, pp. 6179 -6195, September 2020.
284. H.-T. He, M.-J. Zhang, S. Jin, C.-K. Wen, G. Y. Li, "Model-driven deep learning for massive MU-MIMO with finite-alphabet precoding," *IEEE Communications Letters*, vol. 24, no. 10, pp. 2216-2220, October 2020.
285. Y.-F. He, J. Zhang, S. Jin, C.-K. Wen, and G. Y. Li, "Model-driven DNN decoder for turbo codes: Design, simulation and experimental results," *IEEE Transactions on Communications*, vol.68, no. 10, pp.6127-6140, October 2020.
286. Z.-H. Li, C.-H. Qi, and G. Y. Li, "Low-complexity multicast beamforming for millimeter wave communications," *IEEE Transactions on Vehicular Technology*, vol. 69, no. 10, pp. 12317-12320, October 2020.

287. Y.-Y. Sun, W. Xu, L.-S. Fan, G. Y. Li, and G. K. Karagiannidis, “AnciNet: An efficient deep learning approach for feedback compression of estimated CSI in massive MIMO systems,” *IEEE Communications Letters*, vol. 9, no. 12, pp. 2192-2196, December 2020.
288. C.-H. Qi, K.-J. Chen, O. A. Dobre, and G. Y. Li, “Hierarchical codebook based multiuser beam training for millimeter massive MIMO,” *IEEE Transactions on Wireless Communications*, vol. 19, no. 12, pp. 8142-8152, December 2020.
289. Y.-C. Liang, Q.-Q. Zhang, E. G. Larsson, and G. Y. Li, “Symbiotic radio: Cognitive backscattering communications for future wireless networks,” *IEEE Transactions on Cognitive Communications and Networking*, vol. 4, no. 6, pp. 1242-1255, December 2020.
290. X.-H. You, ..., G. Y. Li, ..., “Toward 6G wireless communications networks: vision, enabling technologies, and new paradigm shifts,” *Science China Information Sciences*, vol. 64, pp. 1- 74, January 2021. (*Web of Science highly cited paper, also a hot paper*)
291. J.-C. Shi, W.-N. Wang, X.-P. Yi, J.-H. Wang, X.-Q. Gao, Q. Liu, and G. Y. Li, “Learning to compute ergodic rate for multi-cell scheduling massive MIMO,” *IEEE Transactions on Wireless Communications*, vol. 20, no. 2, pp. 785-797, February 2021.
292. W.-Q. Wu, X.-Q. Gao, C. Sun, and G. Y. Li, “Shallow underwater acoustic massive MIMO communications,” *IEEE Transactions on Signal Processing*, vol. 20, no. 2, pp. 1124-1139, 2021.
293. M. A. ElMossallamy, H.-L. Zhang, R. Sultan, K. G. Seddik, L.-Y. Song, G. Y. Li, and Z. Han, “On spatial multiplexing using reconfigurable intelligent surfaces,” *IEEE Wireless Communications Letters*, vol. 10, no. 2, pp. 226-230, February 2021.
294. R. Liu, G.-D. Yu, J.-T. Yuan, G. Y. Li, “Resource management for millimeter-wave ultra-reliable and low-latency communications,” *IEEE Transactions on Communications*, vol. 69, no. 2, pp. 1094-1108, February 2021.
295. C.-T. Guo, W. He, and G. Y. Li, “Optimal fairness-award resource supply and demand management for mobile edge computing,” *IEEE Wireless Communications Letters*, vol. 10, no. 3, pp. 678-682, March 2021.
296. B. Clerckx, Y.-J. Mao, R. Schober, E. Jorswieck, D. J. Love, J.-H. Yuan, L. Hanzo, G. Y. Li, E. G. Larsson, and G. Caire, “Is NOMA efficient in multi-antenna networks? A critical look at next generation multiple access techniques,” *IEEE Open Journal of the Communications Society*, vol. 2, pp. 1310 – 1343, 2021.
297. M.-Y. Lee, G.-D. Yu, and G. Y. Li, “Graph embedding based wireless link scheduling with few training samples,” *IEEE Transactions on Wireless Communications*, vol. 20, no. 4, pp. 2282-2294, April 2021.
298. Q. Hu, F.-F. Gao, H. Zhang, Shi Jin, and G. Y. Li, “Deep learning for channel estimation: interpretation, performance, and comparison,” *IEEE Transactions on Wireless Communications*, vol. 20, no. 4, pp. 2398-2412, April 2021. (in best readings at <http://www.comsoc.org/best-readings>)
299. F.-F. Gao, B.-L. Wang, C.-W. Xing, J.-P. An, and G. Y. Li, “Wideband beamforming for hybrid massive MIMO terahertz communications,” *IEEE Journal on Selected Areas in Communications*, vol. 39, no. 6, pp. 1725-1740, June 2021.
300. H.-Q. Xie, Z.-J. Qin, G. Y. Li, and B.-H. F. Juang “Deep learning enabled semantic communication systems,” *IEEE Transactions on Signal Processing*, vol. 69, pp. 2663-2675, 2021. (*Web of Science highly cited paper, in best readings at <http://www.comsoc.org/best-readings>*)
301. S. Gao, P.-H. Dong, Z.-W. Pan, and G. Y. Li, “Deep multi-stage acquisition for reconfigurable intelligent surface aided MIMO systems,” *IEEE Communications Letters*, vol. 25, no. 6, pp. 2024 – 2028, June 2021.
302. F.-F. Liu, J.-X. Pan, X.-W. Zhou, G. Y. Li, “Atmospheric ducting effect in wireless communications: challenges and opportunities,” *Journal of Communications and Information Networks*, vol. 6, no. 2, pp. 101-109, June 2021.
303. C.-H. Qi, P.-H. Dong, W.-Y. Ma, H. Zhang, Z.-C. Zhang, and G. Y. Li, “Acquisition of channel state information for mmWave massive MIMO: traditional and machine learning-based approaches,” *Science China - Information Science*, vol. 64, no. 8, August 2021.

304. M. A. ElMossallamy, K. G. Seddik, W. Chen, L. Wang, G. Y. Li, and H. Zhu, "RIS optimization on complex circle manifold for interference mitigation in interference channels," *IEEE Transactions on Vehicular Technology*, vol. 70, no. 6, pp. 6184 – 6189, June 2021.
305. Y.-Y. Sun, W. Xu, L. Liang, N. Wang, G. Y. Li, and X.-H. You, "A lightweight deep network for efficient CSI feedback in massive MIMO systems," *IEEE Wireless Communications Letters*, vol. 10, no. 8, pp. 1840 – 1844, August 2021.
306. Z.-Y. Gong, L. Wu, Z.-C. Zhang, J. Dang, B.-C. Zhu, H. Jiang, and G. Y. Li, "Joint CFO and DOA estimation with TOA compensation using large-scale arrays," *IEEE Transactions on Signal Processing*, vol. 69, pp. 4204 – 4218, 2021.
307. H. Ye, L. Liang, G. Y. Li, and B.-H. F. Juang, "Deep learning based end-to-end wireless communication systems without pilots," *IEEE Transactions on Cognitive Communications and Networking*, vol. 7, no. 3, pp. 702 – 714, September 2021.
308. P.-W. Jiang, S. Jin, C.-K. Wen, and G. Y. Li, "Dual CNN based channel estimation for MIMO-OFDM systems," *IEEE Transactions on Communications*, vol. 69, no. 9, pp. 5859 – 5872, September 2021.
309. Q.-M. Wang, H. Zhang, J.-B. Wang, F. Yang, and G. Y. Li, "Join beamforming for integrated mmwave satellite-terrestrial self-backhauled networks," *IEEE Transactions on Vehicular Technology*, vol. 70, no. 9, pp. 9103 – 9117, September 2021.
310. H.-B. Wang, Z.-C. Zhang, B.-C. Zhu, J. Dang, L. Wu, L. Wang, K.-H. Zhang, Y.-D. Zhang, and G. Y. Li, "Performance analysis of multi-branch reconfigurable intelligent surfaces-assisted optical wireless communication systems in environment with obstacles," *IEEE Transactions on Vehicular Technology*, vol. 70, no. 10, pp. 9986 – 10001, October 2021.
311. A. Mohammadian, C. Tellambura, and G. Y. Li, "Deep learning-based phase noise compensation in multicarrier systems," to appear in *IEEE Wireless Communications Letters*, vol. 10, no. 10, pp. 2110 – 2114, October 2021.
312. Z.-J. Qin, G. Y. Li, and H. Ye "Federated learning and wireless communications," *IEEE Wireless Communications*, vol. 28, no. 5, pp. 134 – 140, October 2021.
313. C.-J. Wang, C.-K. Wen, S.-H. Tsai, S. Jin, and G. Y. Li, "Phase retrieval using expectation consistent signal recovery algorithm based on hypernetwork," *IEEE Transactions on Signal Processing*, vol. 69, pp. 5770 – 5783, 2021.
314. J.-C. Shi, W.-J. Wang, X.-P. Yi, X.-Q. Gao, and G. Y. Li, "Deep learning-based robust precoding for massive MIMO," *IEEE Transactions on Communications*, vol. 69, no. 11, pp. 7429 – 7443, November 2021.
315. X. Yang, S. Jin, G. Y. Li, and X. Li, "Asymmetrical uplink and downlink transceivers in massive MIMO systems," *IEEE Transactions on Vehicular Technology*, vol. 70, no. 11, pp. 11632 – 11647, November 2021.
316. P.-W. Jiang, T.-Q. Wang, B. Han, X.-X. Gao, J. Zhang, C.-K. Wen, S. Jin, and G. Y. Li, "AI-aided online adaptive OFDM receiver: Design and experimental results," *IEEE Transactions on Wireless Communications*, vol. 20, no. 11, pp. 7756 – 7768, November 2021.
317. W.-K. Tang, X.-Y. Chen, M.-Z. Chen, J.-Y. Dai, Y. Han, S. Jin, Q. Cheng, G. Y. Li, and T.-J. Cui, "On channel reciprocity in reconfigurable intelligent surface assisted wireless networks," *IEEE Wireless Communications*, vol. 28, no. 6, pp. 94 – 101, December 2021.
318. A. Mohammadian, C. Tellambura, and G. Y. Li, "Deep learning LMMSE joint channel, PN, and IQ imbalance estimator for multicarrier MIMO full-duplex systems," *IEEE Wireless Communications Letters*, vol. 11, no. 1, pp. 111 – 115, January 2022.
319. C.-F. Ding, J.-B. Wang, H. Zhang, M. Lin, and G. Y. Li, "Joint optimization of transmission and computation resources for satellite and high-altitude platform assisted edge computing," *IEEE Transactions on Wireless Communications*, vol. 21, no. 2, pp. 1362 – 1377, February 2022.
320. M.-H. Chen, J.-J. Gao, C.-K. Wen, S. Jin, and G. Y. Li, "Deep learning-based implicit CSI feedback in massive MIMO," *IEEE Transactions on Communications*, vol. 70, no. 2, pp. 935 – 950, February 2022.
321. H.-Q. Xie, Z.-J. Qin, and G. Y. Li, "Task-oriented multi-user semantic communications for VQA tasks," *IEEE Wireless Communications Letters*, vol. 11, no. 3, pp. 553 – 557, March 2022.

322. J.-B. Gao, M. Hu, C.-J. Zhong, G. Y. Li, and Z.-Y. Zhang, “An attention-aided deep learning framework for massive MIMO channel estimation,” *IEEE Transactions on Wireless Communications*, vol. 21, no. 3, pp. 1823 – 1835, March 2022.
323. M. A. ElMossallamy, R. Sultan, K. G. Seddik, G. Y. Li, and H. Zhu, “Maximizing dirty-paper coding rate of RIS-assisted multi-user MIMO broadcast channels,” *Intelligent and Converged Networks Journal*, vol. 3, no. 1, pp. 64-73, March 2022.
324. S.-L. Zhou, Z.-Y. Luo, N.-H. Xiu, and G. Y. Li, “Computing one-bit compressive sensing via double-sparsity constrained optimization,” *IEEE Transactions on Signal Processing*, vol. 70, pp. 1593 – 1608, 2022.
325. X.-L. Yu, A.-A. Lu, X.-Q. Gao, G. Y. Li G.-R. Ding, and C.-X. Wang, “HF skywave massive MIMO communication,” *IEEE Transactions on Wireless Communications*, vol. 21, no. 4, pp. 2769 – 2785, April 2022.
326. J.-S. Zhou, Y.-J. Sun, C. Tellambura, and G. Y. Li, “Joint user grouping, sparse beamforming, and subcarrier allocation for D2D underlaid cache-enabled C-RANs with rate splitting,” *IEEE Transactions on Vehicular Technology*, vol. 71, no. 4, pp. 3792 – 3806, April 2022.
327. H. Ye, L. Liang, and G. Y. Li, “Decentralized learning with unreliable communications,” *IEEE Journal on Selected Topics in Signal Processing*, vol. 16, no. 3, pp. 487 – 500, April 2022.
328. J.-B. Gao, C.-J. Zhong, G. Y. Li, and Z.-Y. Zhang, “Online deep neural network for optimization in wireless communications,” *IEEE Wireless Communications Letters*, vol. 11, no. 5, pp. 933 – 937, May 2022.
329. C.-H. Qi, Q. Liu, X.-H. Yu, and G. Y. Li, “Hybrid precoding for mixture use of phase shifters and switches in mmWave massive MIMO,” *IEEE Transactions on Communications*, vol. 70, no. 6, pp. 4121 – 4133, June 2022.
330. K.-W. Yu, G. Wu, S.-Q. Li, and G. Y. Li, “Energy-efficient multi-cell beamforming via multi-agent reinforcement learning,” *Journal of Communications and Information Networks*, vol. 7, no. 2, pp. 170-180, June 2022.
331. C.-F. Ding, J.-B. Wang, H. Zhang, M. Lin, and G. Y. Li, “Joint MIMO precoding and computation resource allocation for integrated communication and radar systems with mobile edge computing,” *IEEE Journal on Selected Area in Communications*, vol. 40, no. 7, pp. 2085 – 2102, July 2022.
332. Y.-Z. Liu, O.-Y. Hu, Y.-L. Cai, G.-D. Yu, and G. Y. Li, “Deep-unfolding beamforming for intelligent reflecting surface assisted full-duplex systems,” *IEEE Transactions on Wireless Communications*, vol. 21, no. 7, pp. 4784 – 4800, July 2022.
333. J.-B. Gao, C.-J. Zhong, G. Y. Li, and Z.-Y. Zhang, “Deep learning-based channel estimation for massive MIMO with hybrid transceiver,” *IEEE Transactions on Wireless Communications*, vol. 21, no. 7, pp. 5162 – 5174, July 2022.
334. L. Yan, Z.-J. Qin, Y.-Z. Li, R. Zhang, and G. Y. Li, “Resource allocation for semantic-aware networks,” *IEEE Wireless Communications Letters*, vol. 11, no. 7, pp. 1394 – 1398, July 2022.
335. P.-W. Jiang, C.-K. Wen, S. Jin, and G. Y. Li, “Deep source-channel coding for sentence semantic transmission with HARQ,” *IEEE Transactions on Communications*, vol. 70, no. 8, pp. 5225 – 5240, August 2022.
336. Y.-Q. Zhang, J.-Y. Sun, J. Xue, Z.-B. Xu, and G. Y. Li, “Deep expectation-maximization for joint MIMO channel estimation and signal detection,” *IEEE Transactions on Signal Processing*, vol. 70, pp. 4483 – 4497, 2022.
337. W. Tong and G. Y. Li “Nine challenges in artificial intelligence and wireless communications for 6G,” *IEEE Wireless Communications*, vol. 29, no. 4, pp. 140 – 145, August 2022.
338. N. Su, J.-B. Wang, H. Zhang, M. Lin, and G. Y. Li, “Unmanned surface vehicle aided maritime data collection based deep reinforcement learning,” *IEEE Internet of Things Journal*, vol. 9, no. 20, pp. 19773 – 19786, October 2022.
339. M.-Y. Lee, G.-D. Yu, H.-Y. Dai, and G. Y. Li, “Graph neural networks meet wireless communications: motivation, applications, and future directions,” *IEEE Wireless Communications*, vol. 29, no. 5, pp. 12 – 19, October 2022.

340. S. Z. Hu, Y.-P. Duan, X.-M. Tao, G. Y. Li, and J.-H. Lu, "Facial image compression strategy based on human perception," *IEEE Signal Processing Letters*, vol. 29, no. 20, pp. 2148 – 2152, 2022.
341. Z.-J. Cao, H. Zhang, L. Liang, and G. Y. Li, "Machine learning for wireless communications: an overview," *APSIPA Transactions on Signal and Information Processing*, vol. 11, no. 1, 2022.
342. N. V. Huynh and G. Y. Li, "Transfer learning for signal detection in wireless networks," *IEEE Wireless Commun. Letters*, vol. 11, no. 11, November 2022.
343. J.-J. Guo, C.-K. Wen, S. Jin, and G. Y. Li, "Overview of deep learning-based CSI feedback in massive MIMO systems," *IEEE Transactions on Communications*, vol. 70, no. 12, pp. 8017-8045, December 2022.
344. J.-Y. Liao, J.-H. Zhao, F.-F. Gao, and G. Y. Li, "Deep learning aided low complexity sphere decoding for MIMO detection," *IEEE Transactions on Communications*, vol. 70, no. 12, pp. 8046-8059, December 2022.
345. P.-W. Jiang, C.-K. Wen, S. Jin, and G. Y. Li, "Wireless semantic communications for video conferencing," *IEEE Journal on Selected Areas in Communications*, vol. 41, no. 1, pp. 230-244, January 2023. (*Web of Science highly cited paper*)
346. F. Mirkarimi, C. Tellambura, and G. Y. Li, "Deep MMSE estimation for data detection," *IEEE Communications Letters*, vol. 27, no. 1, pp. 180-184, January 2023.
347. H.-T. He, R. Wang, S. Jin, C.-K. Wen, and G. Y. Li, "Beamspace channel estimation in Terahertz communications: A model-driven unsupervised deep learning approach," *IEEE Transactions on Wireless Communications*, vol. 22, no. 3, pp. 1808-1822, March 2023.
348. O.-Y. Wang, J.-B. Gao, and G. Y. Li, "Learning to adapt to current environment from past experience: Few-shot online learning in wireless communications," *IEEE Transactions on Cognitive Communications and Networking*, vol. 9, no. 2, pp. 373-385, April 2023.
349. L.-H. Ge, H. Zhang, J.-B. Wang, and G. Y. Li, "Reconfigurable wireless relaying with multi-UAV-carried intelligent reflecting surfaces," *IEEE Transactions on Vehicular Technology*, vol. 72, no. 4, pp. 4932-4947, April 2023.
350. S.-L. Zhou and G. Y. Li, "FedGiA: an efficient hybrid algorithm for federated learning," *IEEE Transactions on Signal Processing*, vol. 71, pp. 1941-1508, 2023.
351. D. Shi, L.-F. Song, W.-Q. Zhou, X.-Q. Gao, C.-X. Wang, and G. Y. Li, "Channel acquisition for HF skywave massive MIMO-OFDM communications," *IEEE Transactions on Wireless Communications*, vol. 22, no. 6, pp. 4074-4089, June 2023.
352. J.-B. Gao, C.-J. Zhong, G. Y. Li, J. B. Soriaga, and A. Behboodi, "Deep learning-based channel estimation for wideband hybrid mmwave massive MIMO," *IEEE Transactions on Communications*, vol. 71, no. 6, pp. 3679-3693, June 2023.
353. P.-W. Jiang, C.-K. Wen, J. Shi, and G. Y. Li, "Wireless semantic transmission via revising modules in conventional communications," *IEEE Wireless Communications*, vol. 30, no. 3, pp 28-34, June 2023.
354. J.-C. Shi, W. Zhong, X.-Q. Gao, and G. Y. Li, "Robust WMMSE precoder with deep learning design for massive MIMO," *IEEE Transactions on Communications*, vol. 71, no. 7, pp. 3963-3976, July 2023.
355. S.-L. Zhou and G. Y. Li, "Federated learning via inexact ADMM," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 45, no. 8, pp. 9699-9780, August 2023.
356. H.-Q. Xie, Z.-J. Qin, and G. Y. Li, "Task-oriented semantic communication systems with memory," submitted to *IEEE Journal on Selected Areas in Communications*, vol. 41, no. 8, pp. 2658-2669, August 2023.
357. B.-W. Zhang, H. Sifaou, and G. Y. Li, "CSI-fingerprinting indoor localization via attention-augmented residual convolutional neural network," *IEEE Transactions on Wireless Communications*, vol. 22, no. 8, pp. 5583-5597, August 2023.
358. Z.-Z. Wang, Z.-J. Qin, X.-M. Tao, C.-K. Pan, G.-Y. Liu, and G. Y. Li, "Deep learning enabled semantic communications with speech recognition and synthesis," *IEEE Transactions on Wireless Communications*, vol. 22, no. 9, pp. 6227-6240, September 2023.
359. B.-W. Zhang, Z.-J. Qin, and G. Y. Li, "Semantic communications with variable-length coding for extended reality," *IEEE Journal on Selected Topics in Signal Processing*, vol. 17, no. 5, pp. 1038-1051, September 2023.

360. Y. Yang, M.-L. Ma, ...G. Y. Li, ..., "6G network AI architecture for everyone-centric customized services," *IEEE Network*, vol. 37, no. 5, pp. 71- 80, September/October 2023. (*Web of Science* highly cited paper)
361. X.-L. Yu, X.-Q. Gao, A.-A. Liu, J.-L. Zhang, H.-B. Wu, and G. Y. Li, "Robust precoding for HF skywave massive MIMO," *IEEE Transactions on Wireless Communications*, vol. 22, no. 10, pp. 6691-6705, October 2023.
362. K.-D. Xu, H. Nguyen, and G. Y. Li, "Distributed-training-and-execution multi-agent reinforcement learning for power control in HetNet," *IEEE Transactions on Communications*. vol. 71, no. 10, pp. 5893-5903, October 2023.
363. X.-L. Yu, A.-A. Lu, C. Sun, X.-Q. Gao, and G. Y. Li, "Downlink transmitter design with statistical CSI for HF skywave massive MIMO communication," *IEEE Transactions on Vehicular Technology*, vol. 72, no. 11, pp. 14396-14410, November 2023.
364. C.-T. Guo, X.-J. Wang, L. Liang, G. Y. Li, "Age of information, latency, and reliability in intelligent vehicular networks," *IEEE Network Magazine*, vol. 37, no. 6, pp. 109-116, November/December 2023.
365. C.-T. Guo, Z.-C. Li, L. Liang, and G. Y. Li, "Reinforcement learning based dynamic power control for reliable wireless transmission," *IEEE Internet of Things Journal*, vol. 10, no. 23, pp. 20868-20883, December 2023.
366. Q.-Y. Hu, G.-Y. Zhang, Z.-J. Qin, Y.-L. Cai, G.-D. Yu, and G. Y. Li, "Robust semantic communications with masked VQ-VAE enabled codebook," *IEEE Transactions on Wireless Communications*, vol. 22, no. 12, pp. 8707-8722, December 2023.
367. Q. Hu, F.-F. Gao, H. Zhang, G. Y. Li, and Z.-B. Xu, "Understanding deep MIMO detection," *IEEE Transactions on Wireless Communications*, vol. 22, no. 12, pp. 9626-9639, December 2023.
368. Y.-M. Ge, J.-C. Fan, G. Y. Li, and L.-C. Wang, "Intelligent reflecting surface enhanced UAV communications: advances, challenges, and prospects," *IEEE Wireless Communications*, vol. 30, no. 6, pp. 119-126, December 2023.
369. C.-H. Qi, J. Wang, L. Lyu, L. Tan, J. Zhang, and G. Y. Li, "Key issues in wireless transmission for NTN-assisted IoT," *IEEE IoT Magazine*. vol. 7, no. 1, pp. 40-46, January 2024.
370. J.-J. Guo, T. Chen, C.-K. Wen, J. Shi, G. Y. Li, X. Wang, and X.-L. Hou, "Deep learning for joint channel estimation and feedback in massive MIMO systems," *Digital Communications and Networks*, vol. 10, pp. 83-93, Issue 1, February 2024.
371. J.-B. Gao, C.-J. Zhong, G. Y. Li, J. B. Soriaga, and A. Behboodi, "Spatially sparse precoding in wideband hybrid terahertz massive MIMO systems," *IEEE Transactions on Wireless Communications*, vol. 23, no. 3, pp. 1871-1885, March 2024.
372. Y.-C. Sheng, H. Ye, L. Liang, S. Jin, and G. Y. Li, "Semantic communication for cooperative perception based on important map," *Journal of the Franklin Institute*, vol. 361, no. 6, pp. 1-16, April 2024.
373. X.-Y. Wei, B.-H. F. Juang, O.-Y. Wang, S.-L. Zhou, and G. Y. Li, "Accretionary learning with deep neural networks with application," *IEEE Transactions on Cognitive Communications and Networking*, vol. 10, no. 2, pp. 660-673, April 2024.
374. K.-J. Chen, C.-H. Qi, O. A. Dobre, and G. Y. Li, "Simultaneous beam training and target sensing in ISAC systems with RIS," *IEEE Transactions on Wireless Communications*, vol. 23, no. 4, pp. 2696-2710, April 2024.
375. Y.-Y. Guo, Z.-J. Qin, X.-M. Tao, and G. Y. Li, "Federated multi-view synthesizing for metaverse," *IEEE Journal on Selected Areas in Communications*, vol. 42, no. 4, pp. 867-879, April 2024.
376. B. Zhang, Z. Qin, and G. Y. Li "Compression ratio learning and semantic communications for video imaging," *IEEE Journal of Selected Topics in Signal Processing*, vol. 18, no. 3, pp. 312 – 324, April 2024.
377. H. Sifaou and G. Y. Li, "Over-the-air federated learning over scalable cell-free massive MIMO," *IEEE Transactions on Wireless Communications*, vol. 23, no. 5, pp. 4214-4227, May 2024
378. K.-J. Chen, C.-H. Qi, C.-X. Wang, and G. Y. Li, "Beam training and tracking for extremely large-scale MIMO communications," *IEEE Transactions on Wireless Communications*, vol. 23, no. 5, pp. 5048-5062, May 2024.

379. K.-J. Chen, C.-H. Qi, O. A. Dobre, and G. Y. Li, “Near-field multiuser communications based on sparse arrays,” *Journal of Selected Topics in Signal Processing*, vol. 18, no. 4, pp. 619-632, May 2024.
380. J.-Y. Liao, J.-H. Zhao, F.-F. Gao, and G. Y. Li, “Deep learning aided low complex breath-first tree search for MIMO detection,” *IEEE Transactions on Wireless Communications*, vol. 23, no. 6, pp. 6266-6278, June 2024.
381. J. Guo, H. Chen, B. Song, Y.-H. Chi, C. Yuan, F. R. Yu, G. Y. Li, and D. Niyato “Distributed task-oriented communication networks with multimodal semantic relay and edge intelligence,” *IEEE Communications Magazine*, vol. 62, no. 6, pp. 82-89, June 2024.
382. S. Zargari, C. Tellambura, A. Maaref, and G. Y. Li, “Deep conditional generative adversarial networks for efficient channel estimation in AmBC systems,” *IEEE Transactions on Machine Learning in Communications and Networking*, vol. 2, no. 6, pp. 805-822, 2024.
383. D. Galappaththige, S. Zargari, C. Tellambura, and G. Y. Li, “Near-field ISAC: beamforming for multi-target detection,” *IEEE Wireless Communications Letters*, vol. 13, no. 7, pp. 1938-1942, July 2024.
384. W. Chen, W.-X. Wan, S.-Y. Wang, P. Sun, G. Y. Li, and B. Ai, “CSI-PPPNet: A one-sided one-for-all deep learning framework for massive MIMO CSI feedback,” *IEEE Transactions on Wireless Communications*, vol. 23, no. 7, pp. 7599-7611, July 2024.
385. P.-W. Jiang, C.-K. Wen, S. Jin, and G. Y. Li, “RIS-enhanced semantic communications adaptive to user requirements,” *IEEE Transactions on Communications*, vol. 72, no. 7, pp. 4134-4148, July 2024.
386. W.-X. Wan, W. Chen, S.-Y. Wang, G. Y. Li, and B. Ai, “Deep plug-and play prior for multitask channel reconstruction in massive MIMO systems,” *IEEE Transactions on Communications*, vol. 72, no. 7, pp. 4149-4162, July 2024.
387. Z.-J. Qin, L. Liang, Z.-J. Wang, S. Jin, X.-M. Tao, W. Tong, G. Y. Li, “AI empowered wireless communications: from bits to semantics,” *Proceedings of the IEEE*, vol. 112, no. 7, pp. 621-652, July 2024.
388. S.-X. Wang, W. Dai, H.-W. Wang, and G. Y. Li, “Robust waveform design for integrated sensing and communication,” *IEEE Transactions on Signal Processing*, vol. 72, no. 7, pp. 3122-3138, 2024.
389. K.-J. Chen, C.-H. Qi, O. A. Dobre, and G. Y. Li, “Triple-refine hybrid-field beam training for mmWave extremely large-scale MIMO,” *IEEE Transactions on Wireless Communications*, vol. 23, no. 8, pp. 8556-8570, August 2024.
390. C. Xu, L.-P. Xiang, S. Sugiura, R. G. Maunder, L.-L. Yang, D. Niyato, G. Y. Li, R. Schober, and L. Hanzo, “Noncoherent orthogonal time frequency space modulation,” *IEEE Transactions on Wireless Communications*, vol. 23, no. 8, pp. 10072-10090, August 2024.
391. J.-B. Gao, X.-M. Chen, and G. Y. Li, “Deep unfolding-based channel estimation for wideband TeraHertz near-field massive MIMO systems,” *Frontiers of Information Technology & Electronic Engineering*, vol. 25, pp. 1162—1172, August 2024.
392. M. A. ElMossallamy, Z. Han, M. Pan, R. Jantti, K. G. Seddik, G. Y. Li, “Noncoherent frequency shift keying for ambient backscatter over OFDM signals,” *IEEE Open Journal of the Communications Society*, vol. 5, pp. 5219-5231, 2024.
393. Y.-Z. Liu Z.-J. Qin, and G. Y. Li, “Energy-efficient distributed spiking neural network for wireless edge intelligence,” *IEEE Transactions on Wireless Communications*, vol. 23, no. 9, pp. 10683-10697, September 2024.
394. B. Lin, C.-B. Zhao, F.-F. Gao, G. Y. Li, J. Qian, and H. Wang, “Environment reconstruction based on multi-user selection and multi-modal fusion in ISAC,” *IEEE Transactions on Wireless Communications*, vol. 23, no. 10, pp. 15083-15095, October 2024.
395. Z.-X. Chen, W.-Q. Yi, A. Nallanathan, and G. Y. Li, “Efficient wireless federated learning with partial model aggregation,” *IEEE Transactions on Communications*, vol. 72, no. 10, pp. 6271-6286, October 2024.
396. K.-D. Xu, S.-L. Zhou, and G. Y. Li, “Federated reinforcement learning for resource allocation in V2X networks,” *IEEE Journal of Selected Topics in Signal Processing*, vol. 18, no. 7, pp. 1210-1221, October 2024.

397. D. Shi, L.-F. Song, X.-Q. Gao, J.-H. Wang, M. Bengtsson, G. Y. Li, and X.-G. Xia, "Beam structured channel estimation for HF skywave massive MIMO-OFDM communications," *IEEE Transactions on Wireless Communications*, vol. 23, no. 11, pp. 16301-16315, November 2024.
398. S.-X. Wang and G. Y. Li, "Machine learning in communications: a road to intelligent transmission and processing," *Communications of Huawei Research*, vol. 7, pp. 2-20, November 2024.
399. S.-Z. Hu, Y.-P. Duan, X.-M. Tao, G. Y. Li, J.-H. Lu, G.-Y. Liu, and Z.-M. Zheng, C.-K. Pan, "Brain-inspired image perceptual quality assessment based on EEG: A QoE perspective," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 46, no. 12, pp. 8424-8441, December 2024.
400. K.-D. Xu, S.-L. Zhou, and G. Y. Li, "Rescale-invariant federated reinforcement learning for resource allocation in V2X networks," *IEEE Communications Letters*, vol. 46, no. 12, pp. 2799-2803, December 2024.
401. D. Shi, L.-F. Song, X.-Q. Gao, J.-H. Wang, M. Bengtsson, and G. Y. Li, "Beam structured signal detector for HF skywave massive MIMO-OFDM communications," *IEEE Transactions on Wireless Communications*, vol. 23, no. 12, pp. 19459-19474, December 2024.
402. S.-L. Zhou, L. Pan, N. Xiu, and G. Y. Li, (2024). "A 0/1 constrained optimization solving sample average approximation for chance constrained programming," *Mathematics of Operations Research*, 50, 4, 2688-2716, 2024
403. J.-J. Huang, C.-H. Qi, O. A. Dobre, and G. Y. Li, "Beam switching based beam design for high-speed train mmWave communications," *IEEE Transactions on Wireless Communications*, vol. 24, no. 2, pp. 1355-1370, February 2025.
404. D. Galappaththige, S. Zargari, C. Tellambura, and G. Y. Li, "Low-complexity multi-target detection in ELAA ISAC," *IEEE Communications Letters*, vol. 29, no. 3, pp. 620-624, March 2025.
405. J.-W. Cao, C.-T. Guo, H.-J. Wang, Z.-G. Wang, and G. Y. Li, "Deep learning based performance testing for analog integrated circuits," *IEEE Transactions on Very Large Scale Integration Systems*, vol. 33, no. 4, pp. 1187-1191, April 2025.
406. Y.-K. Cheng, W. Chen, T.-W. Hou, G. Y. Li, and B. Ai, "Learning rate-compatible linear block codes: an auto-encoder based approach," *IEEE Transactions on Vehicular Technology*, vol. 74, no. 4, pp. 6745-6749, April 2025.
407. H. Zhang, S.-L. Zhou, G. Y. Li, N. Xiu, and Y. Wang, (2025). "A step function based recursion method for 0/1 deep neural networks," *Applied Mathematics and Computation*, 488, 129129.
408. K.-J. Chen, C.-H. Qi, J.-J. Huang, O. A. Dobre, and G. Y. Li, "Near-field communications for extremely large-scale MIMO: A beamspace perspective," *IEEE Communications Magazine*, vol. 63, no. 5, pp. 166-172, May 2025.
409. Y.-C. Sheng, K. Huang, L. Liang, P. Liu, S. Jin, and G. Y. Li, "Beam prediction based on large language models," *IEEE Wireless Communications Letters*, vol. 14, no. 5, pp. 1406-1410, May 2025.
410. D. Galappaththige, S. Zargari, C. Tellambura, and G. Y. Li, "Optimum rate-splitting multiple with integrated sensing and backscatter communication," *IEEE Transactions on Vehicular Technology*, vol. 74, no. 6, pp. 9117-9133, June 2025.
411. K. Huang, L. Liang, S. Jin, and G. Y. Li, "Meta reinforcement learning for fast spectrum sharing in vehicular networks," to appear in *China Communications*.
412. J.-J. Guo, X. Yang, C.-K. Wen, S. Jin, and G. Y. Li, "Deep learning-based CSI feedback for RIS-assisted multi-user systems," *IEEE Transactions on Communications*, vol. 73, no. 7, pp. 4974-4989, July 2025.
413. P.-W. Jiang, C.-K. Wen, S. Jin, and G. Y. Li, "Semantic satellite communications based on generative foundation model," *IEEE Journal on Selected Area in Communications*, vol. 43, no. 7, pp. 2431-2445, July 2025.
414. S.-X. Wang, W. Dai, and G. Y. Li, "Distributionally robust receive combining," *IEEE Transactions on Signal Processing*, vol. 73, pp. 2736-2752, 2025.
415. S.-X. Wang, W. Dai, and G. Y. Li, "Distributionally robust adaptive beamforming," *IEEE Transactions on Signal Processing*, vol. 73, pp. 2981-2997, 2025.
416. S. Zargari, D. Galappaththige, C. Tellambura, and G. Y. Li, "Downlink beamforming for cell-free ISAC: A fast complex oblique manifold approach," *IEEE Transactions on Wireless Communications*, vol. 24, no. 8, pp. 6458-6474, August 2025.

417. S. Sha, S.-L. Zhou, L.-C. Kong, and G. Y. Li, "Sparse decentralized federated learning," *IEEE Transactions on Signal Processing*, vol. 73, pp. 3406-3420, 2025.
418. Z.-J. Cao, H. Zhang, L. Liang, H.-T. Wang, S. Jin, and G. Y. Li, "Task-oriented semantic communication for stereo-vision 3D object detection," *IEEE Transactions on Communications*, vol. 73, no. 9, pp. 7552-7567, September 2025.
419. K. Huang, L. Liang, X.-P. Yi, H. Ye, S. Jin, and G. Y. Li, "Meta-learning empowered graph neural networks for radio resource management," *IEEE Transactions on Communications*, vol. 73, no. 9, pp. 7584-7598, September 2025.
420. O.-Y. Wang, H.-T. He, S.-L. Zhou, Z. Ding, S. Jin, K. B. Letaief, and G. Y. Li, "Fast adaptation for deep learning-based wireless communications," *IEEE Communications Magazine*, vol. 63, no. 10, pp. 158-164, October 2025.
421. Z.-Z. Weng, Z.-J. Qin, and G. Y. Li, "Large model empowered streaming speech semantic communications," *IEEE Wireless Communications Letters*, vol. 14, no. 10, pp. 3044-3048, October 2025.
422. O.-Y. Wang, S.-L. Zhou, and G. Y. Li, "Frameworks on few-shot learning with applications in wireless communication," *IEEE Transactions on Signal Processing*, vol. 73, pp. 3857-3871, 2025.
423. J.-Z. Hu and G. Y. Li, "Distillation-enabled knowledge alignment protocol for semantic communication in AI agent networks," *IEEE Communications Letters*, vol. 29, no. 11, pp. 2541-2545, November 2025.
424. D. Shi, L.-F. Song, X.-H. Zhang, X.-Q. Gao, J.-H. Wang, X.-H. You, G. Y. Li, and X.-G. Xia "Beam structured precoder for HF skywave massive MIMO-OFDM communications with channel smoothness constraint," *IEEE Transactions on Communications*, vol. 73, no. 11, pp. 12038-12052, November 2025.
425. H. Zhou, Y.-C. Liang, C. Yuen, and G. Y. Li, "Cooperative modulation for symbiotic radio: design methodology, challenges, and solutions," *IEEE Communications Magazine*, vol. 63, no. 12, pp. 149-155, December 2025.
426. Y.-C. Sheng, L. Liang, H. Ye, S. Jin, and G. Y. Li, "Semantic communication for cooperative perception using HARQ," *IEEE Transactions on Cognitive Communications and Networking*, vol. 12, no. 12, pp. 1139-1154, December 2025.
427. C. Huang, X.-Y. Chen, G.-J. Chen, X. Pei, Y. G. Li, and W. Huang, "Deep reinforcement learning-based resource allocation for hybrid bit and generative semantic communications in space-air-ground integrated networks," *IEEE Journal of Selected Areas on Communications*, vol. 43, no. 12, pp. 3942-3954, December 2025.
428. Z.-J. Cao, H. Zhang, L. Liang, J.-P. Gan, S. Jin, and G. Y. Li, "Physical-layer secure transmission for semantic communication systems," *IEEE Transactions on Communications*, vol. 73, no. 12, pp. 14397-14412, December 2025.
429. J.-S. Zhou, C. Tellambura, and G. Y. Li, "Hybrid beamforming design for RSMA-enabled near-field integrated sensing and communications," *IEEE Transactions on Communications*, vol. 73, no. 12, pp. 15369-15382, December 2025.
430. J.-J. Huang, C.-H. Qi, G. Y. Li, and O. A. Dobre, "Fair SSB codebook design for multi-cell mmwave MIMO communications," *IEEE Transactions on Wireless Communications*, vol. 25, pp. 3301-3318, 2026.
431. Y.-Z. Huang, X.-D. Wang, and G. Y. Li, "Federated multi-task semantic communications with unified encoder and task-specific decoders," *IEEE Wireless Communications Letters*, vol. 15, pp. 365-369, 2026.
432. L.-F. Song, D. Shi, X.-Q. Gao, G. Y. Li, and X.-G. Xia "Beam structured turbo receiver for HF skywave massive MIMO," *IEEE Transactions on Wireless Communications*, vol. 25, pp. 8194-8209, 2026.
433. H. Zhang, Z.-J. Cao, L. Liang, H. Ye, S. Jin, and G. Y. Li, "Prompt-guided multi-task semantic communication for image transmission," *IEEE Communications Letters*, vol. 30, pp. 1111-1115, 2026.
434. S.-Y. Wang, X. Gong, W. Chen, B. Ai, and G. Y. Li, "Tensor train-based channel estimation for RIS-assisted mmWave MIMO systems," *IEEE Wireless Communications Letters*, vol. 15, pp. 1916-1920, 2026.
435. S.-X. Wang, W. Dai, J.-Y. Sun, Z.-B. Xu, and G. Y. Li, "Uncertainty awareness in wireless communications and sensing," *IEEE Communications Magazine*, vol. 64, no. 2, pp. 30-38, February 2026

436. S.-L. Zhou, O.-Y. Wang, Z.-Y. Luo, Y.-X. Zhu, and G. Y. Li, "Preconditioned inexact stochastic ADMM for deep models," *Nature Machine Intelligence*, vol. 8, pp. 334-345, February 2026.
437. Z.-Y. Zhai, X.-J. Yuan, X. Wang, and G. Y. Li, "Decentralized federated learning with distributed aggregation weight optimization," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 48, no. 3, pp. 3899-3910, March 2026.
438. J.-M. Yu, L. Liang, C.-T. Guo, Z.-Y. Guo, S. Jin, and G. Y. Li, "Heterogeneous multi-agent reinforcement learning for distributed channel access in WLANs," to appear in *IEEE Transactions on Cognitive Communications and Networking*.
439. X.-B. Chen, B.-Y. Zhang, X.-W. Zhou, M.-X. Sun, S. Zhang, S.-Y. Zhang, and G. Y. Li, "Efficient training of large-scale AI models through federated mixture-of-experts: A system-level approach," to appear in *IEEE Communications Magazine*.
440. L. Liang, H. Ye, Y.-C. Sheng, O.-Y. Wang, J.-C. Wang, S. Jin, and G. Y. Li, "Large language models for wireless communications: from adaptation to autonomy," to appear in *IEEE Communications Magazine*.
441. J.-S. Zhou, C. Tellambura, and G. Y. Li, "Rate-splitting multiple access for secure near-field integrated sensing and communication," to appear in *IEEE Transactions on Communications*.

B.2 Conference Presentation with Proceedings (Refereed)

1. Y. Li and S. X. Cheng, "An adaptive equalization method for HF data system," *Proc. of 1987 International Conference of Communications Technology*, Nanjing, P. R. China, October 1987.
2. Z. Ding and Y. Li, "Channel identification based on second order cyclostationary statistics," *Proc. of the 26th Asilomar Conference on Signals, Systems & Computers*, pp. 334-338, Pacific Grove, CA, November 1992.
3. Y. Li and Z. Ding, "Linear system phase recovery based on second order cyclostationary statistics," *Proc. of the 27th Conference on Information Sciences and Systems*, pp. 897-902, Baltimore, MD, March 1993.
4. Y. Li and Z. Ding, "Blind channel identification based on second order cyclostationary statistics," *Proc. of 1993 IEEE International Conference on Acoustics, Speech and Signal Processing*, vol. IV, pp. 81-84, Minneapolis, MN, April 1993.
5. Y. Li and Z. Ding, "New results on the blind identification of FIR channels based on second order statistics," *Proc. of 1993 IEEE Military Communications Conference*, pp. 644-647, Boston, MA, October 1993.
6. Y. Li and Z. Ding, "A new nonparametric cepstral method for blind channel identification from cyclostationary statistics," *Proc. of 1993 IEEE Military Communications Conference*, pp. 648-652, Boston, MA, October 1993.
7. Y. Li and Z. Ding, "Global convergence of fractionally spaced Godard equalizer," *Proc. of the 28th Asilomar Conference on Signals, Systems & Computers*, pp. 617-672, Pacific Grove, CA, October 1994.
8. Y. Li, K. J. R. Liu, and J. Razavilar, "Improved parameter estimation schemes for damped sinusoidal signals," *Proc. of the 29th Conference on Information Sciences and Systems*, pp. 786-791, Baltimore, MD, March 1995.
9. Y. Li and K. J. R. Liu, "On blind MIMO channel identification using second order statistics," *Proc. of the 30th Conference on Information Sciences and Systems*, pp. 1166-1170, Princeton, NJ, March 1996.
10. Y. Li, K. J. R. Liu, and Z. Ding, "Intrinsic properties of local minima for unconstrained blind equalizers," *Proc. of the 30th Conference on Information Sciences and Systems*, pp. 906-1000, Princeton, NJ, March 1996.
11. J. Razavilar, Y. Li, and K. J. R. Liu, "Spectral estimation based on structured low-rank matrix pencil," *Proc. of 1996 IEEE International Conference on Acoustics, Speech and Signal Processing*, vol. V, pp. 2503-2506, Atlanta, GA, May 1996.
12. Y. Li and K. J. R. Liu, "Learning characteristics for general class of adaptive blind equalizers," *Proc. of 1996 IEEE International Conference on Communications*, vol. 2, pp. 1000-1004, Dallas, TX, June 1996.
13. Y. Li and K. J. R. Liu, "On blind equalization of MIMO channels," *Proc. of 1996 IEEE International Conference on Communications*, vol. 2, pp. 1020-1024, Dallas, TX, June 1996.

14. B. Sampath, Y. Li, and K. J. R. Liu, "A subspace based blind identification and equalization algorithm," *Proc. of 1996 IEEE International Conference on Communications*, vol. 2, pp. 1010-1014, Dallas, TX, June 1996.
15. Y. Li and K. J. R. Liu, "Blind identification and equalization for multiple-input/multiple-output channels," *Proc. of 1996 IEEE Global Telecommunications Conference*, pp. 1789-1793, London, UK, November 1996.
16. Y. Li and K. J. R. Liu, "Blind adaptive equalization and diversity combining," *Proc. of 1997 IEEE International Conference on Acoustics, Speech and Signal Processing*, pp. 4041-4044, Munich, Germany, April 1997.
17. Y. (G.) Li and K. J. R. Liu, "Blind identification and equalization for wireless communications using antenna array," *Proc. of SPIE'97: Advanced Signal Processing*, pp. 251-262, San Diego, CA, July 1997.
18. Y. (G.) Li, J. Winters, and N. Sollenberger, "Parameter tracking of STE for IS-136 TDMA systems with rapid dispersive fading, and co-channel interference," *Proc. of The 8th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, pp. 811-815, Helsinki, Finland, September 1997.
19. S. Ariyavisitakul and Y. (G.) Li, "Joint coding and decision feedback equalization for broadband wireless channels," *Proc. of IEEE 48th Annual Vehicular Technology Conference*, pp. 2256-2261, Ottawa, Canada, May 1998.
20. Y.-C. Liang, Y. (G.) Li, and K. J. R. Liu, "Feasibility of transmitter diversity for IS-136 TDMA systems," *Proc. of IEEE 48th Annual Vehicular Technology Conference*, pp. 2321-2324, Ottawa, Canada, May 1998.
21. Y. (G.) Li, L. J. Cimini, Jr., and N. R. Sollenberger, "Robust channel estimation for OFDM systems with rapid dispersive fading channels," *Proc. of 1998 IEEE International Conference on Communications*, pp. 1320-1324, Atlanta, Georgia, June 1998.
22. Y. (G.) Li, J. Winters, and N. Sollenberger, "Optimum spatial-temporal equalization for diversity receiving systems with co-channel interference," *Proc. of 1998 IEEE International Conference on Communications*, pp. 1355-1359, Atlanta, Georgia, June 1998.
23. Y. (G.) Li, "OFDM for wireless communications: techniques for capacity improvement," *Proc. of 1998 International Conference of Communications Technology*, pp. S38.01.1-5, Beijing, P. R. China, October 1998.
24. Y. (G.) Li and N. Sollenberger, "Interference suppression in OFDM systems using adaptive antenna arrays," *Proc. 1998 IEEE Global Telecommunications Conference: Communication Theory Mini-Conference*, pp. 213-218, Sydney, Australia, November 1998.
25. Y. (G.) Li, N. Seshadri, and S. Ariyavisitakul, "Transmitter diversity of OFDM systems with mobile wireless channels," *Proc. of 1998 IEEE Global Telecommunications Conference*, pp. 968-973, Sydney, Australia, November 1998.
26. Y. (G.) Li, "Pilot-symbol-aided channel estimation for OFDM in wireless systems," *Proc. of IEEE 49th Annual Vehicular Technology Conference*, pp. 1131-1135, Houston, Texas, May 1999.
27. Y. (G.) Li, J. Chuang, and N. R. Sollenberger, "Transmitter diversity for OFDM systems and its impact on high-rate wireless networks," *Proc. of 1999 IEEE International Conference on Communications*, pp. 534-538, Vancouver, Canada, June 1999.
28. Y. (G.) Li and N. R. Sollenberger, "Clustered OFDM with channel estimation for high rate wireless data," *Proc. of The Sixth IEEE International Workshop on Mobile Multimedia Communications*, pp. 43-50, San Diego, California, November 1999.
29. L. Lin, Y. (G.) Li, and J. C.-I. Chuang, "Performance of COFDM system with robust channel estimation in rapid dispersive fading channels," *Proc. of IEEE 51st Vehicular Technology Conference*, pp. 1250-1254, Tokyo, Japan, May 2000.
30. Y. (G.) Li, "Two novel symbol estimation approaches for wireless systems with ISI and CCI," *Proc. of IEEE 51st Vehicular Technology Conference*, pp. 1290-1294, Tokyo, Japan, May 2000.
31. Y. (G.) Li, "Optimum spatial-temporal receiver for wireless systems with ISI and CCI," *Proc. of 2000 IEEE International Conference on Communications*, pp. 272-276, New Orleans, LA, June 2000.

32. Y. (G.) Li and N. R. Sollenberger, "Robust transforms for channel estimator in clustered OFDM for high rate wireless data," *Proc. of 2000 IEEE International Conference on Communications*, pp. 277-281, New Orleans, LA, June 2000.
33. Y. (G.) Li, "Spatial-temporal processing for wireless mobile systems with ISI and CCI," *Proc. of 2000 International Conference of Communications Technology*, pp. 172-179, Beijing, P. R. China, August 2000.
34. H. Zeng, Y. (G.) Li, and J. H. Winters, "A fast selective-direction MMSE timing recovery algorithm for spatial-temporal equalization in EDGE," *Proc. of IEEE (Fall) Annual Vehicular Technology Conference*, pp. 1333-1337, Boston, MA, September 2000.
35. H. Zeng, Y. (G.) Li, J. H. Winters, and H. R. Sadjadpour, "A 2-stage soft-output equalizer for EDGE," *Proc. of 2000 IEEE Wireless Communications and Networking Conference*, pp. 393-397, Chicago, IL, September 2000.
36. J. C. L. Chuang, Y. (G.) Li, N. R. Sollenberger, and L. Lin, "OFDM based high-speed wireless access for internet applications," (**invited talk**), *Proc. of the 11th IEEE International Symposium on Personal, Indoor and Mobile Radio Communication*, pp. 797-803, London, UK, September 2000.
37. Y. (G.) Li and L. J. Cimini, Jr., "Interchannel interference of OFDM in mobile radio channels," *Proc. of 2000 IEEE Global Telecommunications Conference*, pp. 706-710, San Francisco, CA, November 2000.
38. L. Lin, J. C.-I. Chuang, and Y. (G.) Li, "Near optimal joint channel estimation and data detection for COFDM systems," *Proc. of 2000 IEEE Global Telecommunications Conference*, pp. 726-730, San Francisco, CA, November 2000.
39. Y. (G.) Li, "Optimum training sequences for OFDM systems with multiple transmit antennas," *Proc. of 2000 IEEE Global Telecommunications Conference*, pp. 1478-1482, San Francisco, CA, November 2000.
40. R. S. Blum, Q. Yan, Y. (G.) Li, and J. H. Winters, "Improved techniques for 4 transmit and 4 receive antenna MIMO-OFDM for wireless communications," *Proc. of IEEE 53rd Vehicular Technology Conference*, pp. 1298-1302, Rhodes, Greece, May 2001.
41. Y. (G.) Li, J. H. Winters, and N. R. Sollenberger, "Signal detection for MIMO-OFDM wireless communications," *Proc. of 2001 IEEE International Conference on Communications*, pp. 3077-3081, Helsinki, Finland, June 2001.
42. A. Vielmon, Y. (G.) Li, and J. R. Barry, "Performance of transmit diversity over time-varying Rayleigh-fading channels," *Proc. of 2001 IEEE Global Telecommunications Conference*, pp. 3242-3246, San Antonio, TX, December 2001.
43. B. Lu, X.-D. Wang, and Y. (G.) Li, "Iterative receivers for space-time block coded OFDM systems in dispersive fading channels," *Proc. of 2001 IEEE Global Telecommunications Conference*, pp. 514-518, San Antonio, TX, December 2001.
44. J.-N. Yang and Y. (G.) Li, "A decision-feedback equalizer with tentative chip feedback for the downlink of wideband CDMA," *Proc. of 2002 IEEE International Conference on Communications*, pp. 119-123, New York, NY, May 2002.
45. G.-C. Song and Y. (G.) Li, "Utility-based joint physical-MAC layer optimization in OFDM," *Proc. of 2002 IEEE Global Telecommunications Conference*, pp. 671-675, Taipei, Taiwan, November 2002.
46. J.-X. Du and Y. (G.) Li, "Channel estimation for D-BLAST OFDM systems," *Proc. of 2002 IEEE Global Telecommunications Conference*, pp. 335-339, Taipei, Taiwan, November 2002.
47. G.-C. Song and Y. (G.) Li, "Adaptive subcarrier and power allocation in OFDM systems based on maximizing utility," *Proc. of IEEE 57th (2003 Spring) Vehicular Technology Conference*, pp. 905-909, Jeju, Korea, April 2003.
48. J.-X. Du and Y. (G.) Li, "MIMO-OFDM channel estimation in frequency-selective channels based on subspace tracking," *Proc. of IEEE 57th (2003 Spring) Vehicular Technology Conference*, pp. 1084-1088, Jeju, Korea, April 2003.
49. T. Hwang and Y. G. Li, "Iterative cyclic prefix reconstruction for coded single-carrier systems with frequency-domain equalization," *Proc. of IEEE 57th (2003 Spring) Vehicular Technology Conference*, pp. 1841-1845, Jeju, Korea, April 2003.

50. H. Zhang and Y. (G.) Li, "Optimum frequency-domain partial response encoding in OFDM system," *Proc. of 2003 IEEE International Conference on Communications*, pp. 2025-2029, Anchorage, Alaska, May 2003.
51. H. Zhang and Y. (G.) Li, "Clustered OFDM with adaptive antenna array for interference suppression," *Proc. of 2003 IEEE International Conference on Communications*, pp. 2066-2070, Anchorage, Alaska, May 2003.
52. Y. (G.) Li and H.-J. Wang, "Channel estimation for MIMO-OFDM wireless communications," *Proc. of IEEE 2003 International Symposium on Personal, Indoor and Mobile Radio Communications*, pp. 2891-2895, Beijing, China, September 2003.
53. J.-B. Kim, G. Stuber, and Y. (G.) Li, "Iterative joint channel estimation and detection combined with pilot-tone symbols in convolutionally coded OFDM systems," *Proc. of IEEE 2003 International Symposium on Personal, Indoor and Mobile Radio Communications*, pp. 535-539, Beijing, China, September 2003.
54. H. Zhang and Y. (G.) Li, "Anti-jamming property of clustered OFDM for dispersive channels," *Proc. of 2003 IEEE Military Communications Conference*, pp. 336-340, Boston, MA, October 2003.
55. Y. (G.) Li, A. F. Molisch, and J.-Y. Zhang, "Channel estimation and signal detection for UWB," *Proc. of the 6th International Symposium on Wireless Personal Multimedia Communications (WPMC'03)*, Kanagawa, Japan, October 2003.
56. A. F. Molisch, Y. Nakache, P. Orlik, J. Zhang, Y. Wu, S. Gezici, S. Y. Kung, V. H. Poor, Y. (G.) Li, H. Sheng, and A. Haimovich, "An efficient low-cost time-hopping impulse radio for high data rate transmission," *Proc. of the 6th International Symposium on Wireless Personal Multimedia Communications (WPMC'03)*, Kanagawa, Japan, October 2003.
57. G.-C. Song and Y. (G.) Li, "Adaptive resource allocation based on utility optimization in OFDM networks," *Proc. of IEEE 2003 Global Telecommunications Conference*, pp. 586-590, San Francisco, CA, December 2003.
58. J.-X. Du and Y. (G.) Li, "Optimization of antenna configuration for MIMO systems," *Proc. of IEEE 2003 Global Telecommunications Conference*, pp. 2746-2750, San Francisco, CA, December 2003.
59. J.-N. Yang and Y. (G.) Li, "Low complexity OFDM MIMO system based on channel correlations," *Proc. of IEEE 2003 Global Telecommunications Conference*, pp. 591-595, San Francisco, CA, December 2003.
60. J. Zhu, B. Bing, Y. (G.) Li, and J. Xu, "An adaptive subchannel allocation algorithm for OFDM-based wireless home networks," *Proc. of 2004 IEEE Consumer Communications and Networking Conference (CCNC'2004)*, pp. 352-356, Las Vegas, Nevada January 2004.
61. G.-C. Song, Y. (G.) Li, L. J. Cimini, Jr., and H.-T. Zheng, "Joint channel-aware data scheduling in multiple shared wireless channels," *Proc. of 2004 IEEE Wireless Communications and Networking Conference*, pp. 1939-1944, Atlanta, GA, March 2004.
62. Y. (G.) Li, A. Molisch, and J. Zhang, "Practical approaches to channel estimation and interference suppression for OFDM based UWB communications," *Proc. of IEEE 6th CAS Workshop/Symposium on Emerging Technologies: Frontiers of Mobile and Wireless Communication*, Shanghai, pp. 21-24, China, May 2004.
63. T. Hwang and Y. (G.) Li, "Bandwidth efficient block transmission with frequency-domain equalization," *Proc. of IEEE 6th CAS Workshop/Symposium on Emerging Technologies: Frontiers of Mobile and Wireless Communication*, pp. 433-436, Shanghai, China, May 2004.
64. U. Onunkwo and Y. (G.) Li, "On the optimum pulse-position modulation index for ultra-wideband communications," *Proc. of IEEE 6th CAS Workshop/Symposium on Emerging Technologies: Frontiers of Mobile and Wireless Communication*, pp. 77-80, Shanghai, China, May 2004.
65. J.-X. Du and Y. (G.) Li, "Parallel detection of group-wise space-time codes," *Proc. of 2004 IEEE International Conference on Communications*, pp. 2746-2750, Paris, France, June 2004.
66. T. Hwang and Y. (G.) Li, "Novel iterative equalization based on energy spreading transform," *Proc. of 2004 IEEE International Conference on Communications*, pp. 2352-2356, Paris, France, June 2004.
67. I. R. Capoglu, Y. (G.) Li, and A. Swami, "Effect of Doppler spread in OFDM based UWB systems," *Proc. of IEEE 5th Workshop on Signal Processing Advances in Wireless Communications*, pp. 145-149, Lisbon, Portugal, July 2004.

68. J.-X. Du, Y. (G.) Li, D.-Q. Gu, A. Molisch, and J.-Y. Zhang, "Estimation of performance loss due to delay in channel feedback in MIMO systems," (**invited talk**) *Proc. of IEEE 60th (2004 Fall) Vehicular Technology Conference*, pp. 1619-1622, Los Angeles, CA, September 2004.
69. J.-X. Du, Y. (G.) Li, D.-Q. Gu, A. Molisch, and J. Zhang, "Space-time LDPC with layered structure for MIMO-OFDM systems," *Proc. of the 6th International Symposium on Wireless Personal Multimedia Communications (WPMC'04)*, Abano Terme, Italy, September 2004.
70. T. Hwang and Y. (G.) Li, "Space-time energy spreading transform based MIMO technique with iterative signal detection," *Proc. of IEEE 2004 Global Telecommunications Conference*, pp. 2470-2474, Dallas, TX, November 2004.
71. W. Jiang, X.-X. Yu, and Y. (G.) Li, "Bi-truncation for simplified MIMO signal detection," *Proc. of IEEE 2004 Global Telecommunications Conference*, pp. 401-405, Dallas, TX, November 2004.
72. H. Zhang, Y. (G.) Li, J. Terry, and A. Reid, "Channel estimation for MIMO-OFDM in correlated fading channels," *Proc. of 2005 IEEE International Conference on Communications*, pp. 2626-2630, Seoul, South Korea, May 2005.
73. J.-X. Du, Y. (G.) Li, D.-Q. Gu, A. Molisch, and J. Zhang, "Layered space-time structure with statistical rate allocation," *Proc. of 2005 IEEE International Conference on Communications*, pp. 563-567, Seoul, South Korea, May 2005.
74. G. Ganesan, G.-C. Song and Y. (G.) Li, "Asymptotic throughput analysis of distributed multichannel random access schemes," *Proc. of 2005 IEEE International Conference on Communications*, pp. 3637-3641, Seoul, South Korea, May 2005.
75. T. Hwang and Y. (G.) Li, "Novel Transmission and Iterative Signal-Detection Schemes Based on Energy Spreading Transform," *Proc. of the 14 Wireless World Research Forum*, San Diego, CA, July 2005.
76. G.-C. Song and Y. (G.) Li, "Throughput and delay performance comparison for single-carrier and multicarrier networks with multiuser diversity," *Proc. of IEEE 2005 International Symposium on Personal, Indoor and Mobile Radio Communications*, Berlin, Germany, September 2005.
77. H. Zhang, Y. (G.) Li, V. Stolpamn, and N. van Waes, "A tracking approach for precoded MIMO-OFDM systems with low data rate CSI feedback," *Proc. of IEEE 2005 International Symposium on Personal, Indoor and Mobile Radio Communications*, Berlin, Germany, September 2005.
78. G.-C. Song and Y. (G.) Li, "Asymptotic throughput analysis of multiuser diversity," *Proc. IEEE 2005 Global Telecommunications Conference*, pp.1289-1293, St. Louis, MO, November 2005.
79. G. Ganesan and Y. (G.) Li, "Agility improvement through cooperative diversity in cognitive radio," *Proc. IEEE 2005 Global Telecommunications Conference*, pp. 2505-2509, St. Louis, MO, November 2005.
80. J. B. Kim, G. Stuber, and Y (G.) Li, "Robust V-BLAST MIMO-OFDM channel estimators in time-varying channels using iterative Wiener filters," *Proc. of IEEE 2005 Global Telecommunications Conference*, pp. 3917-3921, St. Louis, MO, November 2005.
81. G. Ganesan and Y. (G.) Li, "Cooperative spectrum sensing in cognitive radio networks," *Proc. of IEEE 2005 Dynamic Spectrum Access Networks*, pp. 137-143, Baltimore, MD, November 2005.
82. T. Hwang and Y. (G.) Li, "Improved scheme for energy spreading transform based equalization," *Proc. of IEEE 63th (2006Spring) Vehicular Technology Conference*, Melbourne, Australia, May 2006.
83. Y. Yuan-Wu, M. Sarkiss, and Y. (G.) Li, "How to obtain good performance by iterative and diversity techniques for uplink MC-CDMA systems," *Proc. of IEEE 63th (2006 Spring) Vehicular Technology Conference*, Melbourne, Australia, May 2006.
84. G. Ganesan, Y. (G.) Li, and A. Swami, "Channel aware Aloha with imperfect CSI," *Proc. of IEEE 2006 Global Telecommunications Conference*, San Francisco, CA November 2006.
85. T. Hwang and Y. (G.) Li, "Multicarrier CDMA with energy spreading technique for downlink wireless systems," *Proc. of IEEE Wireless Communications and Networking Conference*, Hong Kong, China, March 2007.
86. G. Ganesan, Y. (G.) Li, and F. W. Vook, "Stability region of multicarrier channel aware Aloha," *Proc. of IEEE Wireless Communications and Networking Conference*, Hong Kong, China, March 2007.
87. Y. (G.) Li, A. C. K. Soong, Y.-G. Du, and J.-M. Lu, "Beamforming with imperfect CSI," *Proc. of IEEE Wireless Communications and Networking Conference*, Hong Kong, China, March 2007.

88. Y. (G.) Li, A. C. K. Soong, J.-M. Lu, and Y.-G. Du, "Power allocation without CSI feedback for decision-feedback MIMO signal detection," *Proc. of IEEE Wireless Communications and Networking Conference*, Hong Kong, China, March 2007.
89. G. Ganesan, Y. (G.) Li, B. Bing, and S.-Q. Li, "Spatial-temporal sensing in cognitive radio networks," *Proc. of IEEE 2007 International Symposium on Personal, Indoor and Mobile Radio Communications*, Athens, Greece, September 2007.
90. G. Ganesan and Y. (G.) Li, "A simple reservation scheme for multicarrier channel Aloha," *Proc. IEEE 2007 Global Telecommunications Conference*, Washington, D. C., November 2007.
91. J. Ma and Y. (G.) Li, "Soft combination and detection for cooperative spectrum sensing in cognitive radio networks," *Proc. IEEE 2007 Global Telecommunications Conference*, Washington, D. C., November 2007.
92. G.-W. Maio and Y. (G.) Li, "Decentralized cross-layer optimization for multichannel Aloha wireless networks," *Proc. IEEE 2007 Global Telecommunications Conference*, Washington, D. C., November 2007.
93. V. K. Y. Wu, Y. (G.) Li, M. Green, T. Reid, and P. Wang, "Error rate performance in OFDM-based cooperative networks," *Proc. IEEE 2007 Global Telecommunications Conference*, Washington, D. C., November 2007.
94. Y. (G.) Li and J.-Y. Zhang, "Hot-spot wireless access exploiting shadowing diversity of distributed antennas," *Proc. 2008 IEEE International Symposium on Broadband Multimedia Systems and Broadcasting*, Las Vegas, Nevada, March-April 2008.
95. G.-W. Miao, Y. (G.) Li, A. Swami, and N. Himayat "Cross-layer optimization based on partial local knowledge," (**invited talk**) *Proc. IEEE Wireless Communications and Networking Conference*, Vegas, Nevada, March-April 2008.
96. J. Ma and Y. (G.) Li, "A probability-based spectrum sensing scheme for cognitive radio," *Proc. IEEE 2008 International Conference on Communications*, Beijing, China, May 2008.
97. G.-W. Miao, N. Himayat, Y. (G.) Li, and D. Bormann, "Energy efficient design in wireless OFDMA," *Proc. IEEE 2008 International Conference on Communications*, Beijing, China, May 2008.
98. F. Wang, J. Tan, and Y. (G.) Li, "Single carrier data transmission with orthogonal frequency domain multiplexing pilots," *Proc. IEEE 2008 International Conference on Communications*, Beijing, China, May 2008.
99. P. Wang, S. A. Hassan, and Y. (G.) Li, "A full rate symmetric cooperative relay approach for wireless systems," *Proc. 2008 IEEE Circuits and Systems for Multimedia Wireless Communications*, Shanghai, China, May 2008.
100. M. S. Al Bashar, Z. Ding, and Y. (G.) Li, "QoS aware resource allocation for heterogeneous multiuser OFDM wireless networks," *Proc. 2008 IEEE 9th Workshop on Signal Processing Advances in Wireless Communications*, Recife, Brazil, July 2008.
101. G.-W. Miao, Y. (G.) Li, N. Himayat, and S. Talwa, "Cochannel interference avoidance MAC in wireless networks," (**invited talk**) *Proc. International Wireless Communications and Mobile Computing Conference 2008*, Crete, Greece, August 2008.
102. X.-W. Zhou, J. Ma, Y. (G.) Li, Y. H. Kwon, and A. C. K. Soong, "Probability-based transmit power control for dynamic spectrum access," *Proc. IEEE 2008 Dynamic Spectrum Access Networks*, Chicago, IL, October 2008.
103. G.-W. Miao, N. Himayat, Y. (G.) Li, and D. Bormann, "Energy efficient transmission in frequency-selective channels," *Proc. IEEE 2008 Global Telecommunications Conference*, New Orleans, LA, November 2008.
104. X.-W. Zhou, Y. (G.) Li, Y.-H. Kwon, and A. Soong, "Detection timing and channel selection for periodic spectrum sensing in cognitive radio," *Proc. IEEE 2008 Global Telecommunications Conference*, New Orleans, LA, November 2008.
105. G.-D. Zhao, J. Ma, Y. (G.) Li, T. Wu, Y.-H. Kwon, A. Soong, and C.-Y. Yang, "Spatial spectrum holes for cognitive radio with directional transmission," *Proc. IEEE 2008 Global Telecommunications Conference*, New Orleans, LA, November 2008.

106. S. A. Hassan, G. Y. Li, P. S. S. Wang, and M. Green, "Equalization for symmetric cooperative relay scheme for wireless communications," *Proc. IEEE Radio and Wireless Symposium*, January 2009.
107. J. Ma, P. Orlik, J. Zhang, T. Kuze, and G. Y. Li, "Static power allocation in two-hop amplify-and-forward relay MIMO systems," *Proc. IEEE 69th (2009 Spring) Vehicular Technology Conference*, Barcelona, Spain, April 2009.
108. G.-D. Zhao, J. Ma, G. Y. Li, A. Soong, and C.-Y. Yang, "Spatial spectrum holes in cognitive radio with relay transmission," *Proc. IEEE 69th (2009 Spring) Vehicular Technology Conference*, Barcelona, Spain, April 2009.
109. J. Ma, P. Orlik, J. Zhang, and G. Y. Li, "Pilot matrix design for interim channel estimation in two-hop MIMO AF relay systems," *Proc. IEEE 2009 International Conference on Communications*, Dresden, Germany, June 2009.
110. G.-W. Miao, N. Himayat, Y. (G.) Li, and O. Oyman, "Interference-aware energy-efficient power control," *Proc. IEEE 2009 International Conference on Communications*, Dresden, Germany, June 2009.
111. G.-W. Miao, N. Himayat, and Y. (G.) Li, "Low-complexity energy-efficient OFDMA," *Proc. IEEE 2009 International Conference on Communications*, Dresden, Germany, June 2009.
112. H. Zhang, Y. (G.) Li, and Y. Yuan-Wu, "Adaptive spreading code assignment for uplink MC-CDMA," *Proc. IEEE 2009 International Conference on Communications*, Dresden, Germany, June 2009.
113. G.-D. Zhao, G. Y. Li, C.-Y. Yang, and J. Ma, "Proactive detection of spectrum holes in cognitive radio," *Proc. IEEE 2009 International Conference on Communications*, Dresden, Germany, June 2009.
114. X.-W. Zhou, J. Ma, G. Y. Li, Y. H. Kwon, and A. C. K. Soong, "Probability-based combination for cooperative spectrum sensing in cognitive radio networks," *Proc. IEEE 2009 International Conference on Communications*, Dresden, Germany, June 2009.
115. J. B. Kim, G. L. Stuber, and Y. (G.) Li, "Bandwidth-efficient modulation for channel estimation in OFDM systems," *Proc. 14th International OFDM-Workshop 2009*, Hamburg, Germany, Sept. 2009.
116. X. Wang, G. Y. Li, H.-J. Hu, L. Qin, A. C. K. Soong, "IBI cancellation based on limited channel feedback for OFDM systems over channels with large delay spread," *Proc. IEEE 2009 Global Telecommunications Conference*, Honolulu, Hawaii, November 2009.
117. G.-W. Miao, G. Y. Li, N. Himayat, and A. Swami, "Channel aware distributed random access with fairness consideration," *Proc. IEEE 2009 Global Telecommunications Conference*, Honolulu, Hawaii, November 2009.
118. J. Ma, G. Y. Li, J.-Y. Zhang, T. Kuze, and H. Iura, "A new cross-talk cancellation scheme for wireless relay," *Proc. IEEE 2009 Global Telecommunications Conference*, Honolulu, Hawaii, November 2009.
119. X.-W. Zhou, G. Y. Li, D.-D. Li, D.-D. Wang, and A. C. K. Soong, "Probability-based resource allocation with diverse QoS support in cognitive radio networks," *Proc. IEEE 2009 Global Telecommunications Conference*, Honolulu, Hawaii, November 2009.
120. J.-H. Lee and G. Y. Li, "Iterative limited feedback beamforming for MIMO ad-hoc networks," *Proc. IEEE 2009 Global Telecommunications Conference*, Honolulu, Hawaii, November 2009.
121. L.-Y. Li, X.-W. Zhou, H.-B. Xu, G. Y. Li, D.-D. Wang, and A. C. K. Soong, "Energy-efficient optimization in cognitive radio networks," *Proc. IEEE 2009 IEEE Consumer Communications and Networking Conference*, Las Vegas, Nevada January 2010.
122. X.-W. Zhou, G. Y. Li, D.-D. Li, D.-D. Wang, and A. C. K. Soong, "Bandwidth efficient combination for cooperative spectrum sensing in cognitive radio networks," *Proc. 2010 IEEE International Conference on Acoustics, Speech and Signal Processing*, Dallas, Texas, March 2010.
123. G.-D. Zhao, C.-Y. Yang, G. Y. Li, D.-D. Li, and A. C. K. Soong, "Channel allocation for cooperative relays in cognitive radio networks," *Proc. 2010 IEEE International Conference on Acoustics, Speech and Signal Processing*, Dallas, Texas, March 2010.
124. J.-X. Wu and G. Y. Li, "Low power collision-tolerant media access control with On-Off accumulative transmission," *Proc. IEEE 2010 International Conference on Communications*, Cape Town, South Africa, May 2010.
125. G.-D. Zhao, C.-Y. Yang, G. Y. Li, D.-D. Li, A. C. K. Soong, and D.-D. Wang, "Communication-oriented cooperative spectrum sensing in cognitive radio," *Proc. the 2010 International Conference on Wireless Communications and Signal Processing*, October 2010, Suzhou, China.

126. J.-X. Wu and G. Y. Li, "Random On-Off accumulative transmission for asynchronous wireless sensor networks," *Proc. IEEE 2010 Global Telecommunications Conference*, Miami, FL, November 2010.
127. L.-Y. Li, G. Wu, H.-B. Xu, G. Y. Li, and X. Feng, "Joint Power Control and Resource Allocation for Interference Mitigation in LTE Uplink Systems," *Proc. 45th Conference on Information Sciences and Systems*, Baltimore, MD, March 2011.
128. X.-W. Zhou, G. Y. Li, and G.-L. Sun, "Low-complexity precoding for spectral compactness of OFDM-based cognitive radios," *Proc. IEEE 2011 Wireless Communications and Networking Conference*, Quintana-Roo, Mexico, March 2011.
129. Z.-K. Xu, C.-Y. Yang, and G. Y. Li, "Optimal threshold design for FFR schemes in multi-cell OFDMA networks," *Proc. IEEE 2011 International Conference on Communications*, Kyoto, Japan, June 2011.
130. J. Ma, P. Orlik, J.-Y. Zhang, and G. Y. Li, "Reduced-rate OFDM transmission with statistics-based ICI mitigation," *Proc. IEEE 2011 International Conference on Communications*, Kyoto, Japan, June 2011.
131. C. Xiong, Y. G. Li, S.-Q. Zhang, Y. Chen, and S.-G. Xu, "Energy- and spectral-efficiency trade-off in downlink OFDMA networks," *Proc. IEEE 2011 International Conference on Communications*, Kyoto, Japan, June 2011.
132. J.-C. Fan, Q.-Y. Yin, G. Y. Li, B.-G. Peng and X.-L. Zhu, "Adaptive block-level resource allocation in OFDMA networks," *Proc. IEEE 2011 International Conference on Computer Communication Networks*, Maui, Hawaii, July-August, 2011.
133. J.-C. Fan, Q.-Y. Yin, G. Y. Li, B.-G. Peng, and X.-L. Zhu, "MCS selection for throughput improvement in downlink LTE systems," *Proc. IEEE 2011 International Conference on Computer Communication Networks*, Maui, Hawaii, July-August, 2011.
134. D.-L. Jia, G. Wu, S.-Q. Li, G. Y. Li, and X.-L. Zhu, "Dynamic soft frequency reuse with inter-cell coordination in OFDMA networks," *Proc. IEEE 2011 International Conference on Computer Communication Networks*, Maui, Hawaii, July-August, 2011.
135. Z.-K. Xu, C.-Y. Yang, G. Y. Li, S.-Q. Zhang, Y. Chen, and S.-G. Xu, "Energy-efficient MIMO-OFDMA systems based on switching off RF chain," *Proc. 2011 IEEE 74th (2011 Fall) Vehicular Technology Conference*, San Francisco, CA, Sept. 2011.
136. Z.-K. Xu, C.-Y. Yang, Y. G. Li, S.-Q. Zhang, Y. Chen, and S.-G. Xu, "Power allocation between training and data symbols based on energy efficiency," *Proc. IEEE 2011 Global Telecommunications Conference*, Houston, TX, December 2011.
137. C. Xiong, G. Y. Li, S.-Q. Zhang, Y. Chen, and S.-G. Xu, "Energy-efficient resource allocation in OFDMA networks," *Proc. IEEE 2011 Global Telecommunications Conference*, Houston, TX, December 2011.
138. J.-C. Fan, Q.-Y. Yin, G. Y. Li, B.-G. Peng, and X.-L. Zhu, "Joint user pairing and resource allocation for uplink SC-FDMA systems," *Proc. IEEE 2011 Global Telecommunications Conference*, Houston, TX, December 2011.
139. X.-W. Zhou, G. Y. Li, and G.-L. Sun, "Multiuser spectral precoding for OFDM-based cognitive radios," *Proc. IEEE 2011 Global Telecommunications Conference*, Houston, TX, December 2011.
140. J.-X. Wu and G. Y. Li, "Cross-layer of random on-off accumulative transmission with iterative detections," *Proc. IEEE 2011 Global Telecommunications Conference* Houston, TX, December 2011.
141. G.-D. Zhao, C.-Y. Yang, G. Y. Li, and G.-L. Sun, "Fractional frequency donation for cognitive interference management among femtocells," *Proc. IEEE 2011 Global Telecommunications Conference*, Houston, TX, December 2011.
142. L. Lu, X.-W. Zhou, and G. Y. Li, "Optimal sequential detection for cognitive radio networks," *Proc. IEEE Wireless Communications and Networking Conference*, Paris, France, April 2012.
143. C. Xiong, G. Y. Li, S.-Q. Zhang, Y. Chen, and S.-G. Xu, "CSI feedback reduction for spectral- and energy-efficient transmission in downlink OFDMA with incomplete CIST," *Proc. IEEE Wireless Communications and Networking Conference*, Paris, France, April 2012.
144. Z.-K. Xu, C.-Y. Yang, G. Y. Li, S.-Q. Zhang, Y. Chen, and S.-G. Xu, "Energy-efficient configuration of spatial and frequency resources in MIMO-OFDMA systems," *Proc. IEEE 2012 International Conference on Communications*, Ottawa, Canada, June 2012.

145. F.-F. Liu, X.-W. Zhou, N. Himayat, S.-P. Yeh, S. Srikanteswara, S. Talwar, C.-Y. Feng, and G. Y. Li, "Exploiting statistical interference model for distributed resource allocation in cognitive femtocells," *Proc. IEEE 2012 International Conference on Communications*, Ottawa, Canada, June 2012.
146. J.-X. Wu, G. Wang, and G. Y. Li, "Frequency domain on-off accumulative transmission over frequency-selective fading channels," *Proc. IEEE 2012 International Conference on Communications*, Ottawa, Canada, June 2012.
147. C. Xiong, G. Y. Li, Y.-L. Liu, and S.-G. Xu, "When should decoding power be considered for achieving high energy-efficiency?" *Proc. 23rd IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, Sydney, Australia, September 2012.
148. J.-P. Niu, D.-W. Lee, X.-F. Ren, G. Y. Li, and T. Su, "Scheduling exploiting frequency and multi-user diversity in LTE downlink systems," *Proc. 23rd IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, Sydney, Australia, September 2012.
149. D.-W. Lee, G. Y. Li, and S.-W. Tang, "Intercell interference coordination for LTE systems," *Proc. IEEE 2012 Global Communications Conference*, Anaheim, CA, December 2012.
150. J.-C. Fan, G. Y. Li, Q.-Y. Yin and L.-L. Li, "Multiuser pairing and resource allocation with interference avoidance for SC-FDMA cellular systems," *Proc. IEEE 2012 Global Communications Conference*, Anaheim, CA, December 2012.
151. C. Xiong, G. Y. Li, Y.-L. Liu, and S.-G. Xu, "QoS driven energy-efficient design for downlink OFDMA networks," *Proc. IEEE 2012 Global Communications Conference*, Anaheim, CA, December 2012.
152. Z.-K. Xu, C.-Y. Yang, G. Y. Li, Y.-L. Liu, and S.-G. Xu, "Energy-efficient cooperative transmission in heterogeneous networks," *Proc. IEEE Wireless Communications and Networking Conference*, Shanghai, China, April 2013.
153. L. Lu and G. Y. Li, "Signal alignment for two-cell CR networks," *Proc. IEEE Wireless Communications and Networking Conference*, Shanghai, China, April 2013.
154. C.-L. He, G. Y. Li, B. Sheng, P.-C. Zhu, and X.-H. You, "Energy and spectral efficient for distributed antenna systems," *Proc. IEEE Wireless Communications and Networking Conference*, Shanghai, China, April 2013.
155. L. Lu, G. Y. Li, and G. Wu, "Optimal power allocation for CR networks with direct and relay-aided transmissions," *Proc. IEEE 2013 International Conference on Communications*, Budapest, Hungary, June 2013.
156. D.-Q. Feng, L. Lu, Y. Yuan-Wu, G. Y. Li, G. Feng, and S.-Q. Li, "User selection based on limited feedback in device-to-device communications," *Proc. IEEE 2013 International Symposium on Personal, Indoor and Mobile Radio Communications*, London, UK, September 2013.
157. D.-W. Lee, G. Y. Li, X.-L. Zhu, and Y.-S. Fu, "Coordinated beamforming for users with multiple antennas in cellular networks," *Proc. IEEE 2013 International Symposium on Personal, Indoor and Mobile Radio Communications*, London, UK, September 2013.
158. C. Xiong, L. Lu, and G. Y. Li, "Energy-efficient spectrum access in cognitive radios," *Proc. IEEE 2013 International Symposium on Personal, Indoor and Mobile Radio Communications*, London, UK, September 2013.
159. J.-P. Niu, D.-W. Lee, T. Su, G. Y. Li, Z.-H. Tang, and Y.-S. Fu, "Cooperative multi-cell scheduling for LTE uplink," *Proc. IEEE 2013 International Symposium on Personal, Indoor and Mobile Radio Communications*, London, UK, September 2013.
160. D.-Q. Feng, L. Lu, Y. Yuan-Wu, G. Y. Li, G. Feng, and S.-Q. Li, "Optimal resource allocation for device-to-device communications in fading channels," *Proc. IEEE 2013 Global Communications Conference*, Atlanta, GA, December 2013.
161. L. Lu, D.-W. Wu, X.-X. Yu, and G. Y. Li, "Energy-efficient resource allocation for CR networks," *Proc. IEEE 2013 Global Communications Conference*, Atlanta, GA, December 2013.
162. L. Lu, D.-W. Wu, X.-X. Yu, and G. Y. Li, "Graph-based robust resource allocation for cognitive radio networks," *Proc. 2014 IEEE International Conference on Acoustics, Speech and Signal Processing*, Florence, Italy, May 2014.

163. Y.-S. Liu, Z.-H. Tan, and G. Y. Li, "Single-carrier modulation with ML equalization for large-scale antenna systems over Rican channels," *Proc. 2014 IEEE International Conference on Acoustics, Speech and Signal Processing*, Florence, Italy, May 2014.
164. J.-C. Fan, G. Y. Li, W. Guo, and X.-L. Zhu, "Multiuser MIMO scheduling for LTE-A downlink cellular networks," *Proc. IEEE 79th Annual Vehicular Technology Conference*, Seoul, Korea, May 2014.
165. C. Xiong, L. Lu, and G. Y. Li, "Energy efficiency tradeoff in downlink and uplink TDD OFDMA with simultaneous wireless information and power transfer," *Proc. IEEE 2014 International Conference on Communications*, Sydney, Australia, June 2014.
166. C. Lin and G. Y. Li, "Distance-aware multi-carrier indoor TeraHertz communications with antenna array selection" *Proc. IEEE 2014 International Symposium on Personal, Indoor and Mobile Radio Communications*, Washington, DC, September 2014. (Best Paper Award)
167. J. Yu, G. Y. Li, C.-C. Yin, S.-W. Tang, and X.-L. Zhu, "Multi-cell coordinate scheduling and power allocation in downlink LTE systems," *Proc. IEEE 80th Annual Vehicular Technology Conference*, Vancouver, Canada, September 2014.
168. W. Guo, J.-C. Fan, G. Y. Li, Q.-Y. Yin, and X.-L. Zhu, "Adaptive SU/MU-MIMO scheduling for LTE-A downlink cellular networks," *Proc. IEEE 80th Annual Vehicular Technology Conference*, Vancouver, Canada, September 2014.
169. C.-L. He, G. Y. Li, F.-C. Zheng, and X.-H. You, "Design criteria for distributed antenna systems," *Proc. IEEE 80th Annual Vehicular Technology Conference*, Vancouver, Canada, September 2014.
170. C. Lin and G. Y. Li, "Indoor Terahertz communications: How many antenna arrays are needed?" *Proc. IEEE 2014 Global Communications Conference*, Austin, TX, December 2014.
171. L. Lu and G. Y. Li, "Robust precoding with QoS guarantee for cognitive radio networks," *Proc. IEEE 2014 Global Communications Conference*, Austin, TX, December 2014.
172. G.-D. Yu, Q.-M. Chen, R. Yin, H.-Z. Zhang, and G. Y. Li, "Joint uplink and downlink resource allocation for energy-efficient carrier aggregation," *Proc. IEEE 2014 Global Communications Conference*, Austin, TX, December 2014.
173. D.-Q. Feng, G.-D. Yu, Y. Yuan-Wu, G. Y. Li, G. Feng, and S.-Q. Li, "Mode switching for device-to-device communications in cellular networks," *Proc. IEEE 2014 Global Conference on Signal and Information Processing*, Atlanta, GA, December 2014.
174. R.-G. Yao, Y.-S. Liu, L. Lu, G. Y. Li, and A. Maaref, "Cooperative capacity-achieving precoding design for multi-user VFDM transmission," *Proc. IEEE 2014 Global Conference on Signal and Information Processing*, Atlanta, GA, December 2014.
175. C.-L. He, G. Y. Li, F.-C. Zheng, and X.-H. You, "Energy efficiency of distributed MIMO systems," *Proc. IEEE 2014 Global Conference on Signal and Information Processing*, Atlanta, GA, December 2014.
176. R. Yin, G.-D. Yu, H.-Z. Zhang, Q.-L. Yu, and G. Y. Li, "Decentralized interference coordination for D2D communication underlying cellular networks," *Proc. IEEE 2015 International Conference on Communications*, London, UK, June 2015.
177. Q.-M. Chen, G.-D. Yu, R. Yin, and G. Y. Li, "Energy-efficient user association and resource allocation for multi-stream aggregation," *Proc. IEEE 2015 International Conference on Communications*, London, UK, June 2015.
178. L. Chang, G. Y. Li, and J.-C. Li, "Improving SNR estimation via oversampling for SIMO communications with linear modulation," *Proc. 3rd IEEE China Submit & International Conference on Signal and Information Processing*, July 2015.
179. S. Xiao, D.-Q. Feng, Y. Yuan-Wu, G. Y. Li, G. Wei, and S.-Q. Li, "Optimal mobile association in device-to-device-enabled heterogeneous networks," *Proc. IEEE 82th Annual Vehicular Technology Conference*, Boston, USA, September 2015.
180. W. Guo, J.-C. Fan, G. Y. Li, Q.-Y. Yin, X.-L. Zhu, and Y.-S. Fu, "3D MIMO with rank adaptation for LTE-A downlink transmission," *Proc. IEEE 2015 International Symposium on Personal, Indoor and Mobile Radio Communications*, HK, China, September 2015.
181. Q.-M. Chen, G.-D. Yu, R. Yin, A. Maaref, G. Y. Li, and A.-P. Huang, "Energy-efficient resource block allocation for licensed-assisted access," *Proc. IEEE 2015 International Symposium on Personal, Indoor and Mobile Radio Communications*, HK, China, September 2015.

182. J. Yu, G. Y. Li, C.-C. Yin, X.-L. Zhu, and Y.-S. Fu, "Transmission mode selection for downlink transmission in LTE-A networks," *Proc. IEEE 2015 International Symposium on Personal, Indoor and Mobile Radio Communications*, HK, China, September 2015.
183. G.-D. Yu, L.-K. Xu, D.-Q. Feng, Z.-Y. Zhang, G. Y. Li, and H.-Z. Zhang, "Energy-efficient power control for wireless interference networks," *Proc. IEEE 2015 Global Communications Conference*, San Diego, CA, December 2015.
184. C. Lin and G. Y. Li, "Antenna subarray partitioning with interference cancelation for multi-user indoor Terahertz communications," *Proc. IEEE 2015 Global Communications Conference*, San Diego, CA, December 2015.
185. L. Lu, G. Y. Li, D.-L. Qiao and W. Han "Sparsity-enhancing basis for compressive sensing based channel feedback in massive MIMO systems," *Proc. IEEE 2015 Global Communications Conference*, San Diego, CA, December 2015.
186. Y.-S. Liu, G. Y. Li, Z.-H. Tan, and D.-L. Qiao, "Performance analysis of single-carrier modulation with correlated large-scale antennas," *Proc. IEEE 2015 Global Communications Conference*, San Diego, CA, December 2015.
187. Q.-M. Chen, G.-D. Yu, H.-G. Shan, A. Maaref, G. Y. Li, and A.-P. Huang, "An opportunistic unlicensed spectrum utilization method for LTE and WiFi coexistence systems," *Proc. IEEE 2015 Global Communications Conference*, San Diego, CA, December 2015.
188. J.-C. Fan, G. Y. Li, and X.-L. Zhu, "Vertical beamforming with downtilt optimization in downlink cellular networks," *Proc. IEEE 2015 Global Communications Conference*, San Diego, CA, December 2015.
189. R. Yin, G.-D. Yu, A. Maaref, and G. Y. Li, "LBT based adaptive channel assess for liscensed-assisted access networks," *Proc. IEEE 2015 Global Communications Conference*, San Diego, CA, December 2015.
190. D.-L. Qiao, H.-F. Qian, and G. Y. Li, "On the design of broadbeam for massive MIMO systems with uniform rectangular array," *Proc. IEEE 2015 Global Conference on Signal and Information Processing*, Orlando, FL, December 2015.
191. L. Chang, G. Y. Li, and J.-C. Li, "Blind parameter estimation of GFDM signals over frequency-selective fading channels," *Proc. IEEE 2015 Global Conference on Signal and Information Processing*, Orlando, FL, December 2015.
192. Y.-J. Liu, L. Lu, G. Y. Li, and C.-M. Cui, "Interference coordination in a two-tier heterogeneous network with massive MIMO," *Proc. IEEE 2015 Global Conference on Signal and Information Processing*, Orlando, FL, December 2015.
193. S. Xiao, X.-W. Zhou, D.-Q. Feng, Y. Yuan-Wu, G. Y. Li, and G. Wei, "Energy-efficient mobile association in device-to-device-enabled heterogeneous networks," *Proc. 2016 International Conference on Computing, Networking and Communications*, Kauai, Hawaii, February 2016.
194. D.-L. Qiao, H.-F. Qian, and G. Y. Li, "On the design of broadbeam for massive MIMO systems," *Proc. 2016 International Conference on Computing, Networking and Communications*, Kauai, Hawaii, February 2016.
195. L. Lu, D.-W. He, Q.-X. Xie, G. Y. Li, X.-X. Yu, "Graph-based path selection and power allocation for relay-aided transmission," *Proc. IEEE 2016 Wireless Communications and Networking Conference*, Doha, Qatar, April 2016.
196. W. Guo, J.-C. Fan, G. Y. Li, Q.-Y. Yin, X.-L. Zhu, and Y.-S. Fu, "3D MU-MIMO transmission in LTE-A downlink systems," *Proc. IEEE 2016 Wireless Communications and Networking Conference*, Doha, Qatar, April 2016.
197. Q.-M. Chen, G.-D. Yu, A. Maaref, G. Y. Li, and A.-P. Huang, "Rethinking mobile data offloading in LTE and WiFi coexistence systems," *Proc. IEEE 2016 Wireless Communications and Networking Conference*, Doha, Qatar, April 2016.
198. Y.-S. Liu, G. Y. Li, and W. Han, "Recursive convolutional precoding for large-scale antenna systems," *Proc. IEEE International Conference on Acoustics, Speech and Signal Processing*, Shanghai, China, May 2016.

199. R. Yin, G.-D. Yu, A. Maaref, and G. Y. Li, "Tradeoff between co-channel interference and collision probability in LAA systems," *Proc. IEEE 2016 International Conference on Communications*, Kuala Lumpur, Malaysia, May 2016.
200. J.-C. Fan, Z.-K. Xu, C.-L. I, and G. Y. Li, "Spectral- and energy-efficient analysis for multi-cell downlink MU-MIMO systems," *Proc. IEEE 2016 International Conference on Communications*, Kuala Lumpur, Malaysia, May 2016.
201. S. Xiao, S.-J. Guo, X.-W. Zhou, D.-Q. Feng, Y. Yuan-Wu, G. Y. Li, and W. Guo, "Joint uplink and downlink resource allocation in full-duplex OFDMA networks," *Proc. IEEE 2016 International Conference on Communications*, Kuala Lumpur, Malaysia, May 2016.
202. S. Xiao, X.-W. Zhou, G. Y. Li, and W. Guo, "Robust resource allocation in full-duplex cognitive radio networks," *Proc. IEEE 2016 Global Communications Conference*, Washington, DC, December 2016.
203. Q.-Q. Wu, G. Y. Li, W. Chen, D. W. K. Ng, "Spectrum-power trading for energy-efficiency small cells," *Proc. IEEE 2016 Global Communications Conference*, Washington, DC, December 2016.
204. Y.-S. Liu, G. Y. Li, and W. Han, "Spectrum quantization for low-overhead CSI feedback for massive MIMO in FDD systems," *Proc. IEEE 2016 Global Communications Conference*, Washington, DC, December 2016.
205. Y.-Z. Wen, G.-D. Yu, R.-P. Li, Y. Chen, and G. Y. Li, "Energy- and spectral-efficiency tradeoff in full-duplex communications," *Proc. IEEE 2016 Global Communications Conference*, Washington, DC, December 2016.
206. L. Liang, G. Y. Li, and W. Xu, "Meeting different QoS requirements of vehicular networks: D2D-based approach," *Proc. IEEE International Conference on Acoustics, Speech and Signal Processing*, New Orleans, USA, March 2017.
207. C. Lin and G. Y. Li, "Coordinated beam training for mmWave and Sub-THz communications with antenna subarrays," *Proc. IEEE 2017 Wireless Communications and Networking Conference*, San Francisco, CA, March 2017.
208. S. Xiao, X.-W. Zhou, Y. Yuan-Wu, G. Y. Li, and W. Guo, "Energy-efficient relay placement and power allocation for two-hop D2D relay networks," *Proc. IEEE 2017 International Conference on Communications*, Paris, France, May 2017.
209. X.-F. Zhai, Y.-L. Cai, Q.-J. Shi, M.-J. Zhao, G. Y. Li, and B. Champagne, "Joint antenna selection and transceiver design for MU-MIMO millimeter-wave systems," *Proc. IEEE 2017 International Conference on Communications*, Paris, France, May 2017.
210. L. You, X.-Q. Gao, G. Y. Li, X.-G. Xia, and N. Ma, "Millimeter-wave/Terahertz massive MIMO BDMA transmission with per-beam synchronization," *Proc. IEEE 2017 International Conference on Communications*, Paris, France, May 2017.
211. X.-Y. Sun, X.-Q. Gao, G. Y. Li, and W. Han, "Agglomerative user clustering and downlink group scheduling for FDD massive MIMO systems," *Proc. IEEE 2017 International Conference on Communications*, Paris, France, May 2017.
212. Z.-J. Qin, Y.-W. Liu, G. Y. Li, and J. A. McCann, "Modelling and analysis of low-power area networks," *Proc. IEEE 2017 International Conference on Communications*, Paris, France, May 2017.
213. D.-L. Qiao, H.-F. Qian, and G. Y. Li, "Multi-resolution codebook design for two-stage precoding in FDD massive MIMO networks," *Proc. 18th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Sapporo, Japan, July 2017.
214. Z.-J. Zheng, L.-Y. Song, G. Y. Li, and H. V. Poor, "Multi-leader multi-follower game-based ADMM for big data processing," *Proc. 18th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, July 2017, Sapporo, Japan.
215. Y. Xie, J.-C. Fan, X.-W. Zhou, G. Y. Li, and X. Li, "User grouping with load balance in FDD massive MIMO systems," *Proc. IEEE 86th Annual Vehicular Technology Conference*, Toronto, Canada, September 2017.
216. J.-P. Niu, G. Y. Li, J.-C. Fan, W.-K. Nie, W. Wang, and X. Li, "Downtilts optimization and power allocation for vertical sectorization in AAS-based LTE-A downlink systems," *Proc. IEEE 86th Annual Vehicular Technology Conference*, Toronto, Canada, September 2017.

217. J.-P. Niu, G. Y. Li, Y.-Y. Li, D.-Y. Fang, J. Zheng, and X. Li, "Performance analysis on 3D beamforming for downlink in-band wireless backhaul for small cells," *Proc. IEEE 86th Annual Vehicular Technology Conference*, Toronto, Canada, September 2017.
218. H. Ye and G. Y. Li, "Initial results on deep learning for joint channel equalization and decoding," *Proc. IEEE 86th Annual Vehicular Technology Conference*, Toronto, Canada, September 2017.
219. R. Yin, G. Y. Li, and A. Maaref, "Spatial DoF allocation for spectrum reuse in LTE-U systems," *Proc. IEEE 2017 Global Communications Conference*, Singapore, December 2017.
220. X.-Y. Sun, X.-Q. Gao, G. Y. Li, and W. Han, "Fingerprint based single-site localization for massive MIM-OFDM systems," *Proc. IEEE 2017 Global Communications Conference*, Singapore, December 2017.
221. B.-Y. Di, L.-Y. Song, Y.-H. Li, and G. Y. Li, "NOMA-based low-latency and high-reliable broadcast communications for 5G V2X services," *Proc. IEEE 2017 Global Communications Conference*, Singapore, December 2017.
222. Y. Xu, Y.-L. Cai, Q.-J. Shi, and G. Y. Li, "Robust transceiver design for full-duplex MIMO relay systems," *Proc. IEEE 2017 Global Communications Conference*, Singapore, December 2017.
223. B.-L. Wang, F.-F. Gao, S. Jin, H. Lin, and G. Y. Li, "Spatial-wideband effect in massive MIMO," **plenary talk** at the *23rd Asian-Pacific Conference on Communications*, December 2017, Perth, Australia.
224. J.-Q. Liu, S. Xiao, X.-W. Zhou, G. Y. Li, G. Wu, and S.-Q. Li, "Optimal mobile association and power allocation in device-to-device-enabled heterogeneous networks with NOMA protocol," *Proc. IEEE 2018 International Conference on Communications*, Kansas City, MO, May 2018.
225. Y.-L. Cai, F.-Y. Cui, Q.-J. Shi, and G. Y. Li, "Joint trajectory and user scheduling optimization for dual-UAV enabled secure communications," *Proc. IEEE 2018 International Conference on Communications*, Kansas City, MO, May 2018.
226. L. Liang, S.-J. Xie, G. Y. Li, Z. Ding, and X.-X. Yu, "Graph-based radio resource management for vehicular networks," *Proc. IEEE 2018 International Conference on Communications*, Kansas City, MO, May 2018.
227. H. Ye and G. Y. Li, "Deep reinforcement learning for resource allocation in V2V communications," *Proc. IEEE 2018 International Conference on Communications*, Kansas City, MO, May 2018.
228. X.-G. Xu, C.-Y. Feng, T.-K. Zhang, J. Loo, and G. Y. Li, "Caching networking with content request aggregation," *Proc. IEEE 2018 International Conference on Communications*, Kansas City, MO, May 2018.
229. H. Ye, G. Y. Li, and B.-H. F. Juang, "Deep reinforcement learning based distributed resource allocation for V2V broadcasting," *Proc. 14th International Wireless Communications and Mobile Computing Conference*, Limassol, Cyprus, June 2018.
230. X.-L. Ma, H. Ye, and G. Y. Li, "Learning assisted estimation for time-varying channels," in *Proc. 15th International Symposium on Wireless Communications Systems (ISWCS'18)*, Lisbon, Portugal, August 2018. (*invited paper*)
231. C.-J. Zheng, D.-Q. Feng, S.-L. Zhang, X.-G. Xia, G.-B. Qian, and G. Y. Li, "V2X-enabled energy-efficient transmission in cellular networks," *Proc. 10th International Conference on Wireless Communications and Signal Processing*, Hanzhou, China, October 2018.
232. H.-T. He, C.-K. Wen, S. Jin, and G. Y. Li "A model-driven deep learning approach for MIMO systems," submitted to *IEEE Global Conference on Signal and Information Processing*, Anaheim, CA, Nov. 2018.
233. C.-T. Guo, L. Liang, and G. Y. Li, "Resource allocation for low-latency vehicular communications with packet retransmission," *Proc. IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018.
234. R. Yin, Y.-F. Zhang, and G. Y. Li, "Fundamental EE tradeoff in LTE-U systems," submitted to *IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018.
235. M. A. ElMossallamy, Z. Han, M. Pan, R. Jantti, K. G. Seddik, and G. Y. Li, "Backscatter communications over ambient OFDM signals using null subcarriers," *Proc. IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018. (2019 *IEEE TCGCC Best Conference Paper Award*)

236. P.-H. Dong, H. Zhang, and G. Y. Li, "Machine learning prediction based CSI acquisition for FDD massive MIMO downlink," *Proc. IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018.
237. F.-Y. Cui, Y.-L. Cai, Z.-J. Qin, Q.-J. Shi, M.-J. Zhao, G. Y. Li, "Joint trajectory design and resource allocation for UAV-enabled non-orthogonal multiple access systems," *Proc. IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018.
238. B.-L. Wang, F.-F. Gao, G. Y. Li, S. Jin, and H. Lin, "Wideband channel estimation for mmwave massive MIMO systems with beam-squint effect," *Proc. IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018. (Best Paper Award)
239. B.-Y. Di, H.-L. Zhang, L.-Y. Song, Y.-H. Li, and G. Y. Li, "Data offloading in ultra-dense LEO-based integrated terrestrial-satellite networks," *Proc. IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018.
240. D. Li, D.-L. Qiao, L. Zhang, and G. Y. Li, "Performance analysis of indoor Terahertz communications with one-bit precoding," *Proc. IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018.
241. J.-Q. Liu, S.-J. Guo, S. Xiao, X.-W. Zhou, G. Y. Li, G. Wu, and S.-Q. Li "Resource allocation for cooperative D2D enabled caching networks," *Proc. IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018.
242. Z.-J. Zheng, L.-Y. Song, Z. Han, G. Y. Li, and V. H. Poor, "A Stackelberg game approach to large-scale edge caching," *Proc. IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018.
243. S.-L. Zhao, Z.-M. Zeng, F.-F. Liu, C.-Y. Feng, and G. Y. Li, "Energy efficient beamforming and polarization reception for massive MIMO enabled SWIPT systems," *Proc. IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018.
244. H. Ye, G. Y. Li, B.-H. Juang, and K. Sivanesan, "Channel agnostic end-to-end learning based communication systems with conditional GAN," *Proc. IEEE Global Communications Conference*, Abu Dhabi, UAE, December 2018.
245. J.-K. Ren, G.-D. Yu, Y.-H. He, and G. Y. Li, "Collaborative cloud and edge computing for latency minimization," *Proc. IEEE 2019 Wireless Communications and Networking Conference*, Marrakech, Morocco, April 2019.
246. J. Zhang, H.-T. He, C.-K. Wen, S. Jin, and G. Y. Li, "Deep learning based on orthogonal approximate message passing for CP-free OFDM," *Proc. IEEE International Conference on Acoustics, Speech and Signal Processing*, Briton, UK, May 2019.
247. P.-H. Dong, H. Zhang, G. Y. Li, N. Naderialzadeh, and I. S. Gaspar, "Deep CNN wideband mmwave massive MIMO channel estimation," *Proc. IEEE International Conference on Acoustics, Speech and Signal Processing*, Briton, UK, May 2019.
248. X.-Y. Fang, T.-K. Zhang, Y.-W. Liu, G. Y. Li, and Z.-M. Zeng, "Multi-winner auction based mobile user caching in D2D-enabled cellular networks," *Proc. IEEE International Conference on Communications*, Shanghai, China, May 2019.
249. M. A. ElMossallamy, Z. Han, M. Pan, R. Jantti, K. G. Seddik, G. Y. Li, "Noncoherent frequency shift keying for ambient backscatter over OFDM signals," *Proc. IEEE International Conference on Communications*, Shanghai, China, May 2019.
250. C. Chen, T.-K. Zhang, Y.-W. Liu, G. Y. Li, and Z.-M. Zeng, "Joint user association and caching placement for cache-enabled UAVs in cellular networks," *Proc. IEEE International Conference on Computer Communications*, Paris, France, April-May 2019.
251. Le Liang, H. Ye, and G. Y. Li, "Spectrum sharing in vehicular networks based on multi-agent reinforcement learning," *Proc. 20th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Cannes, France, July 2019.
252. H. Ye, L. Liang, and G. Y. Li, "Convolutional auto-encoder for channel encoding," *Proc. 20th IEEE International Workshop on Signal Processing Advances in Wireless Communications*, Cannes, France, July 2019.

253. F.-Y. Cui, Z.-J. Qin, Y.-L. Cai, M.-J. Zhao, and G. Y. Li, "Resource allocation for NOMA networks under alternative outage constraints," *Proc. 2019 IEEE 90th Vehicular Technology Conference*, Honolulu, Hawaii, September 2019.
254. M.-Y. Lee, G.-D. Yu, and G. Y. Li, "Accelerating resource allocation for D2D communications using imitation learning," *Proc. 2019 IEEE 90th Vehicular Technology Conference*, Honolulu, Hawaii, September 2019.
255. T. Chen, J.-J. Guo, S. Jin, C.-K. Wen, and G. Y. Li, "Novel Quantization Method for Deep Learning-Based Massive MIMO CSI Feedback," *2019 IEEE Global Conference on Signal and Information Processing*, Ottawa, Canada, November 2019.
256. X.-Y. Sun, C. Wu, X.-Q. Gao, and G. Y. Li, "Deep convolutional neural networks enabled fingerprint localization for massive MIMO-OFDM systems," *Proc. IEEE Global Communications Conference*, Waikoloa, HI, December 2019.
257. K.-J. Chen, C.-H. Qi, O. A. Dobre, and G. Y. Li, "Simultaneously multiuser beam training using adaptive hierarchical codebook for mmwave massive MIMO," *Proc. IEEE Global Communications Conference*, Waikoloa, HI, December 2019. (Best Paper Award)
258. M. A. ElMossallamy, Z. Han, M. Pan, R. Jantti, K. G. Seddik, and G. Y. Li, "Noncoherent MIMO codes construction using autoencoders," *Proc. IEEE Global Communications Conference*, Waikoloa, HI, December 2019.
259. B.-L. Wang, F.-F. Gao, and G. Y. Li, "Energy-focusing window based power leakage elimination for wideband mmwave massive MIMO-OFDM systems," *Proc. 2020 International Conference on Computing, Networking and Communications*, Big Island, Hawaii, February 2020.
260. H. Ye, G. Y. Li, and B.-H. Juang, "Bilinear convolutional auto-encoder based pilot-free end-to-end communication systems," *Proc. IEEE International Conference on Communications*, Dublin, Ireland, June 2020.
261. M.-Y. Lee, G.-D. Yu, and G. Y. Li, "Wireless link scheduling for D2D communications with graph embedding technique," *Proc. IEEE International Conference on Communications*, Dublin, Ireland, June 2020.
262. H. Ye, G. Y. Li, and B.-H. F. Juang, "Deep over-the-air computation," *Proc. IEEE Global Communications Conference*, Taipei, Taiwan, December 2020.
263. Z.-Y. He, L. Wang, H. Ye, G. Y. Li, and B.-H. F. Juang, "Resource allocation based on graph neural network in vehicular communications," *Proc. IEEE Global Communications Conference*, Taipei, Taiwan, December 2020.
264. H.-Q. Xie, Z.-J. Qin, G. Y. Li, and B.-H. F. Juang "Deep learning enabled semantic communication systems: an initial investigation," *Proc. IEEE Global Communications Conference*, Taipei, Taiwan, December 2020.
265. Y.-H. Sun, C.-H. Qi, G. Y. Li "Computation-aided adaptive codebook design for millimeter wave massive MIMO," *Proc. IEEE Global Communications Conference*, Taipei, Taiwan, December 2020.
266. B.-L. Wang, F.-F. Gao, C.-W. Xing, J.-P. An, and G. Y. Li, "Wideband beamforming for hybrid phased array terahertz systems," *Proc. IEEE International Conference on Communications*, Montreal, Canada, June 2021.
267. Z.-Z. Weng, Z.-J. Qin, and G. Y. Li, "Semantic communications for speech signals," *Proc. IEEE International Conference on Communications*, Montreal, Canada, June 2021.
268. J.-C. Shi, W.-J. Wang, X.-P. Yi, X.-Q. Gao, and G. Y. Li, "Deep learning based robust precoder design for massive MIMO downlink," *Proc. IEEE International Conference on Communications*, Montreal, Canada, June 2021.
269. Z.-Z. Weng, Z.-J. Qin, and G. Y. Li, "Semantic communications for speech recognition," to appear in *IEEE Global Communications Conference*, Madrid, Spain, December 2021.
270. W. Ci, C.-H. Qi, G. Y. Li, and S.-W. Mao, "Hybrid beamforming design for covert multicast mmwave massive MIMO communications," in *Proc. IEEE Global Communications Conference*, Madrid, Spain, December 2021.

271. W.-J. Jin, H.-T. He, C.-K. Wen, S. Jin, and G. Y. Li, "Adaptive channel estimation based on model-driven deep learning for wideband mmwave systems," in *Proc. IEEE Global Communications Conference*, Madrid, Spain, December 2021.
272. X.-L. Xu, A.-A. Lu, X.-Q. Gao, G. Y. Li, G.-R. Ding, C.-X. Wang, "Massive MIMO communication over HF skywave channels," in *Proc. IEEE Global Communications Conference*, Madrid, Spain, December 2021.
273. Q. Liu, C.-H. Qi, X.-H. Yu, and G. Y. Li, "Mmwave MIMO hybrid precoding design using phase shifters and switches," in *Proc. IEEE Global Communications Conference*, Madrid, Spain, December 2021.
274. J.-B. Gao, M. Hu, C.-J. Zhong, Z.-Y. Zhang, and G. Y. Li, "An attention-aided deep neural network design for channel estimation in massive MIMO systems," in *Proc. IEEE Global Communications Conference*, Madrid, Spain, December 2021.
275. S.-Z. Hu, Y.-P. Duan, X.-M. Tao, G. Y. Li, and J.-H. Lu, "Brain-inspired image quality assessment method based on electroencephalography feature learning," in *Proc. IEEE Global Communications Conference*, Madrid, Spain, December 2021.
276. H.-R. Peng, L.-C. Wang, G. Y. Li, and A.-H. Tsai, "Long-lasting UAV-aided RIS communications based on SWIPT," in *Proc IEEE 2022 Wireless Communications and Networking Conference*, Austin, TX, USA, April 2022.
277. H. Sifaou and G. Y. Li, "Robust federated learning over-the-air computation," in *Proc. IEEE International Workshop on Machine Learning for Signal Processing*, Xi'an, China, August 2022.
278. D. Shi, L.-F. Song, X.-Q. Gao, C.-X. Wang, and G. Y. Li, "Channel estimation for HF skywave massive MIMO-OFDM with triple-beam based channel model," in *Proc. IEEE Global Communications Conference*, Rio de Janeiro, Brazil, December 2022.
279. X.-L. Yu, X.-Q. Gao, A.-A. Lu, J.-L. Zhang, H.-B. Wu, and G. Y. Li, "Robust precoding for HF skywave massive MIMO with imperfect CSI," in *Proc. IEEE Global Communications Conference*, Rio de Janeiro, Brazil, December 2022.
280. L. Yan, Z.-J. Qin, Y.-Z. Li, and G. Y. Li, "*QoE-aware resource allocation for semantic communication networks*," in *Proc. in IEEE Global Communications Conference*, Rio de Janeiro, Brazil, December 2022.
281. B.-X. Shen, Y.-P. Wu, W.-J. Zhang, G. Y. Li, J.-P. An, and C.-W. Xing, "LEO satellite-enabled grant-free random access with MIMO-OTFS," in *Proc. in IEEE Global Communications Conference*, Rio de Janeiro, Brazil, December 2022.
282. Z.-X. Chen, W.-Q. Yi, A. Nallanathan, and G. Y. Li, "Is partial model aggregation energy-efficient for federated learning enabled wireless networks?" in *Proc. IEEE International Conference on Communications*, Rome, Italy, May 2023.
283. K.-W. Yu, C.-H. Zhao, G. Wu, and G. Y. Li, "Distributed two-tier DRL framework for cell-free network: association, beamforming and power allocation," in *Proc. IEEE International Conference on Communications*, Rome, Italy, May 2023.
284. J.-B. Gao, C.-J. Zhong, and G. Y. Li, "AMP-SBL Unfolding for Wideband MmWave Massive MIMO Channel Estimation," in *Proc. IEEE International Conference on Communications*, Rome, Italy, May 2023.
285. B.-W. Zhang, Z.-J. Qin, and G. Y. Li, "semantic-aware image compressed sensing," to appear in *2023 IEEE International Workshop on Machine Learning for Signal Processing*, Rome, Italy, September 2023.
286. O.-Y. Wang, S.-L. Zhou, and G. Y. Li, "effective adaptation into new environment with few shots: applications to OFDM receiver design," to appear in *2023 IEEE International Workshop on Machine Learning for Signal Processing*, Rome, Italy, September 2023.
287. P.-W. Jiang, C.-K. Wen, S. Jin, and G. Y. Li, "RIS-enhanced semantic image transmission based on reinforcement learning," in *Proc. IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 2022.
288. O.-Y. Wang, S.-L. Zhou, and G. Y. Li, "Few-shot learning for new environment adaptation," in *Proc. IEEE Global Communications Conference*, Kuala Lumpur, Malaysia, December 2022.

289. K. Albagami, N. V. Huynh, and G. Y. Li, "A universal deep neural network for signal detection in wireless communication systems" in *Proc 2024 IEEE International Conference on Machine Learning for Communication and Networking*, Stockholm, Sweden, May 2024.
290. K.-D. Xu, S.-L. Zhou, G. Y. Li, "Federated reinforcement learning for resource allocation in V2X networks," in *Proc. 2024 IEEE 99th Vehicular Technology Conference*, Singapore, June 2024.
291. K.-D. Xu, S.-L. Zhou, G. Y. Li, "Communication-efficient decentralized federated learning via one-bit compressive sensing," *Proc. 2024 IEEE 99th Vehicular Technology Conference*, Singapore, June 2024.
292. B.-W. Zhang, Z.-J. Qin, and G. Y. Li, "Spectral and spatial transformer for multi-target estimation in ISAC," *Proc. 2024 IEEE 35th Annual International Symposium on Personal, Indoor and Mobile Radio Communications*, Valencia, Spain, September 2024.
293. K.-J. Chen, C.-H. Qi, J.-J. Huang, O. A. Dobre, and G. Y. Li, "Antenna position optimization of sparse arrays for near-field multiuser communications," *Proc. 2024 IEEE 25th International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, Lucknow, India, September 2024.
294. S.-X. Wang, W. Dai, and G. Y. Li, "Distributionally robust outlier-aware receive beamforming," *Proc. IEEE International Workshop on Machine Learning for Signal Processing (MLSP)*, London, UK, September 2024.
295. T.-X. Wang, S. Wang, X.-D. Wang, and G. Y. Li, "Collaborative learning for less online retraining of neural receivers," *Proc. IEEE International Workshop on Machine Learning for Signal Processing (MLSP)*, London, UK, September 2024.
296. T.-X. Wang, X.-D. Wang, and G. Y. Li, "GraphRx: Graph-based collaborative learning among multiple cells for uplink neural receivers," *Proc IEEE International Conference on Computer Communications (INFOCOM 2025)*, London UK, July 2024.
297. L.-F. Song, D. Shi, X.-Q. Gao, G. Y. Li, and X.-G. Xia, "Beam structured turbo receiver for HF skywave massive MIMO communications," in *Proc. Proc. IEEE International Conference on Communications*, Montreal, Canada, June 2025.
298. M. Han and G. Y. Li, "Personalized remote piano education via an AI-empowered teacher-student framework," to appear in *International Conference on Computing, Networking and Communication (ICNC'26)*, Hawaii, USA, February 2026.
299. Z.-X. Zhao, J.-Z. Hu, and G. Y. Li, "Enabling high error tolerance in satellite video transmissions by generative semantic communication," to appear in *IEEE International Conference on Communications*, Glasgow, UK, May 2026.
300. X.-Q. Zhang, A. Zhang, C. Liu, W.-J. Yuan, and G. Y. Li, "Semantic sensing: A task-oriented paradigm," to appear in *IEEE International Conference on Communications*, Glasgow, UK, May 2026.
301. T.-H. Mao, L. Liang, J. Yang, H. Ye, S. Jin, and G. Y. Li, "Multimodal wireless: A large-scale dataset for sensing and communication," to appear in *IEEE International Conference on Communications*, Glasgow, UK, May 2026.

B3. Editorials

- Y. (G.) Li, K. J. R. Liu, J. H. Winters, and J. B. Anderson, "Guest editorial," *IEEE Journal on Selected Areas in Communications: Special Issues on Signal Processing for Wireless Communications I*, vol. 16, no. 8, pp. 1337 - 1339, October 1998.
- Y. (G.) Li, K. J. R. Liu, J. H. Winters, and J. B. Anderson, "Guest editorial," *IEEE Journal on Selected Areas in Communications: Special Issues on Signal Processing for Wireless Communications II*, vol. 16, no. 9, pp. 1601 - 1603, December 1998.
- Y. (G.) Li, H. R. Sadjadpour, D. Dahlhaus, and K. Yao, "Editorial," *EURASIP Journal on Applied Signal Processing: Special Issue on Multi-carrier Communications and Signal Processing*, vol. 14, no. 10, pp. 1431-1432, August 2004.
- Y. (G.) Li, P. Mähönen, M. Buddhikot, and Y. C. Liang, "Editorial," *Computer Networks (Elsevier) Special Issue on Cognitive Wireless Networks*, vol. 52, issue 4, pp. 775 - 777, March 2008.
- S. Haykin, J. H. Reed, G. Y. Li, and M. Shafi, "Scanning the issue," *Proc. of IEEE: Special Issues on Cognitive Radio*, vol. 97, no. 4, pp. 608 – 611, April 2009.

- S. Haykin, J. H. Reed, G. Y. Li, and M. Shafi, “Scanning the issue,” *Proc. of IEEE: Special Issues on Cognitive Radio*, vol. 97, no. 5, pp. 784 – 786, May 2009.
- K. Au, D. Cavalcanti, G. Y. Li, W. Caldwell, and K. B. Lataief, “Advances in standard and testbeds for cognitive radio networks: Part I,” *IEEE Communications Magazine*, vol. 48, issue 9, pp. 76 – 77, September 2010.
- Y.-C. Liang, K.-C. Chen, G. Y. Li, P. Mähönen, and D. Niyato, “Guest Editorial: Advances in Cognitive Radio Networking and Communications (I),” *IEEE Journal on Selected Areas in Communications*, vol. 29, no. 2, pp. 273 - 275, February 2011.
- K. Au, D. Cavalcanti, G. Y. Li, W. Caldwell, and K. B. Lataief, “Advances in standard and testbeds for cognitive radio networks: Part II,” *IEEE Communications Magazine*, vol. 49, issue 3, pp. 62 – 63, March 2011.
- Y.-C. Liang, K.-C. Chen, G. Y. Li, P. Mähönen, and D. Niyato, “Guest Editorial: Advances in Cognitive Radio Networking and Communications (II),” *IEEE Journal on Selected Areas in Communications*, vol. 29, no. 4, pp. 673 - 675, April 2011.
- S. Gaur, G. Y. Li; L.-C. Wang; N. B. Mehta, “Editorial - Special Issue on Practical Physical Layer Techniques for 4G Systems & Beyond,” *Special Issue of Journal of Communications*, vol. 6, no. 2, pp. 271 – 273, July 2011.
- Y. Li, S.-G. Xu, A. Swami, N. Himayat, and G. Fettweis, “Guest Editorial: Energy-Efficient Wireless Communications,” *IEEE Journal on Selected Areas in Communications*, vol. 29, no. 8, pp. 1505 - 1507, September 2011.
- H.-G. Zhang and G. Y. Li, “Feature topic: cognitive radio networks,” *IEEE/CIC China Communications*, pp. vii – viii, vol. 10, no. 8, August 2013.
- Y. Li, A. L. Swindlehurst, A. Ashikhmin, D. Gesbert, and R. Zhang, “Introduction to the issue on signal processing for large-scale MIMO,” *IEEE Journal of Selective Topics in Signal Processing*, vol. 8, no. 5, pp. 739 – 741, October 2014.
- Y. Li, M. Bennis, and G.-D. Yu, “Full duplex communications,” *IEEE Communications Magazine*, vol. 53, issue 5, pp. 90, May 2015.
- J.-Z. Zhang, J.-L. Ma, G. Y. Li, W. Yu, N. Jindal, Y. Kishiyama, and S. Parkvall, “New waveforms for 5G networks,” *IEEE Communications Magazine*, vol. 54, issue 5, pp. 64-65, November 2016.
- G.-D. Yu, G. Y. Li, L.-C. Wang, A. Maaref, J. Lee, D. Lopez-Perez, “LTE in unlicensed spectrum,” *IEEE Wireless Communications*, pp. 6 – 7, December 2016.
- Y. Li, A. Maaref, S.-M. Zhang, C.-L. I, P. Nikolich, and J. Irvine, “Message from the founding editorial board,” *IEEE 5G Tech Focus*, vol. 1, no. 1, March 2017 (<http://5g.ieee.org/tech-focus>).
- J.-Z. Zhang, J.-L. Ma, G. Y. Li, Y. Kishiyama, S. Parkvall, G.-Y. Liu, and Y.-H. Kim, “Key technology for 5G new radio,” *IEEE Communications Magazine*, vol. 56, issue 3, pp. 10 – 11, March 2018.
- Y. Li, J. Hoydis, E. d. Carvalho, A. Balatsoukas-Stimming, and Z.-J. Qin, *Best Readings in Machine Learning in Communications*, at <https://www.comsoc.org/publications/best-readings/machine-learning-communications>, *IEEE ComSoc*, March 2019.
- Y. Gao, E. Hossain, G. Y. Li, K. Sowerby, C. Regazzoni, and L. Zhang, “IEEE TCCN Special Section Editorial: Evolution of cognitive radio to AI-enabled radio networks,” *IEEE Transactions on Cognitive Communications and Networking*, vol. 6, no. 1, pp. 1- 5, March 2020.
- Y. Li, etc., “Series editorial: Inauguration issue of series on machine learning in communications and networks,” *IEEE Journal on Selected Areas in Communications*, vol. 39, no. 1, pp. 1- 3, January 2021.
- Y. Li, etc., “Series editorial: the second issue of series on machine learning in communications and networks,” *IEEE Journal on Selected Areas in Communications*, vol. 39, no. 7, pp. 1885 - 1857, July 2021.
- Y. Li, etc., “Series editorial: the third issue of series on machine learning in communications and networks,” *IEEE Journal on Selected Areas in Communications*, vol. 39, no. 8, pp. 2267 - 2270, August 2021.
- Y. Li, etc., “Series editorial: the fourth issue of series on machine learning in communications and networks,” *IEEE Journal on Selected Areas in Communications*, vol. 40, no. 1, pp. 1 - 4, January 2022.

- G. Y. Li, etc., “Series editorial: the fifth issue of series on machine learning in communications and networks,” *IEEE Journal on Selected Areas in Communications*, vol. 39, no. 8, pp. 2251 - 2253, August 2022
- G. Y. Li, etc., “Series editorial: the sixth issue of series on machine learning in communications and networks,” *IEEE Journal on Selected Areas in Communications*, vol. 40, no. 1, pp. 2507 - 2509, September 2022.

C. Patents

1. “Adaptive antenna arrays for orthogonal frequency division multiplexing systems,” granted, October 1999, US Patent No.: 5,973,642 (T).
2. “System and method for joint coding and decision feedback equalization,” granted, January 2000, US Patent No.: 6,012,161 (T).
3. “Methods and systems for symbol estimation in a receiver,” granted, October 2001, US Patent No.: 6,301,315 (T).
4. “Method and apparatus for channel estimation for multicarrier systems,” (citations: 70)
 - granted, December 2001, US Patent No.: 6,327,314 (T),
 - granted, April 2003, Canada Patent No.: CA2273377 (T).
5. “Channel estimation for OFDM systems with transmitter diversity,” granted, October 2002, US Patent No.: 6,473,393 (T). (citations: 64)
6. “System for near optimal joint channel estimation and data detection for COFDM systems,”
 - granted, November 2002, US Patent No.: 6,477,210 (T),
 - granted, May 2011, US Patent No.: 7,940,852 (T),
 - granted, August 2009, Europe Patent No.: EP1256222 (T).
7. “System and method for near optimal joint channel estimation and data detection for cofdm systems,” filed, February 2001, International Patent No.: WO2001058105 (T).
8. “Pilot-aided channel estimation for OFDM in wireless systems,” (citations: 205)
 - granted, November 2003, US Patent No.: 6,654,429 (T),
 - granted, November 2007, US Patent No.: 7,292,651 (T).
9. “Clustered OFDM with channel estimation,”
 - granted, September 2004, US Patent No.: 6,795,392 (T),
 - granted, May 2008, US Patent No.: 7,369,487 (T),
 - granted, November 2012, US Patent No.: 8,320,500 (T).
10. “Methods and systems for symbol timing recovery,” granted November 2005, US Patent No.: 6,970,524 (T).
11. “Method for coding multiple data systems in multiple-input, multiple-output communications systems,”
 - filed, May 2005, International Patent No.: WO2005117319 (Mitsubishi Denki Kabushiki Kaisha),
 - granted, March 2006, Europe Patent No.: EP1639741 (Mitsubishi Electric Corp),
 - granted, May 2006, China Patent No.: CN1778063 (Mitsubishi Electric Corp).
12. “Channel estimation for wireless systems with multiple transmit antennas,” (citations: 27)
 - granted, March 2006, US Patent No.: 7,012,966 (Sony, T),
 - granted, October 2008, US Patent No.: 7,443,919 (Sony, T),
 - granted, October 2006, US Patent No.: 7,127,001 (Sony, T),
 - granted, July 2010, US Patent No.: 7,756,212 (Sony, T).
13. “MIMO OFDM system,” (citations: 253)
 - granted, June 2006, US Patent No.: 7,068,628(T),
 - granted, January 2010, US Patent No.: 7,643,404 (T),
 - granted, February 2012, US Patent No.: 8,121,022 (T),
 - granted, August 2016, US Patent No.: 9,426,009 (T).
14. “Method for near optimal joint channel estimation and data detection for COFDM systems,”
 - granted, August 2006, US Patent No.: 7,099,413 (T),

- granted, December 2008, US Patent No.: 7,460,620 (T).
- 15. “Optimum training sequences for wireless systems,”
 - granted, September 2006, US Patent No.: 7,103,115 (Sony, T),
 - granted December 2007, US Patent No.: 7,305,051 (Sony, T).
- 16. “Estimating channel impulse response and equalizer coefficients in UWB communication systems,” granted, April 2008, US Patent No.: 7,356,100 (MERL).
- 17. “Minimizing feedback rate for channel state information in MIMO systems,” granted, April 2008, US Patent No.: 7,359,470 (MERL).
- 18. “Channel estimation for wireless systems without matrix inversion,” (citations: 47)
 - granted, September 2009, US Patent No.: 7,583,761(Sony, T),
 - granted, May 2014, US Patent No.: 8,724,725 (Sony, T),
 - granted, May 2017, US Patent No.: 9,654,309 (Sony, T),
 - granted, June 2019, US Patent No.: 10,320,587 (Sony),
 - granted, May 2020, US Patent No.: 10,666,463 (Sony).
- 19. “Power allocation in a MIMO system without channel state information feedback,” granted, July 2011, US Patent No.: 7,983,352 (FutureWei).
- 20. “Cross-talk cancellation in cooperative wireless relay networks,” granted, September 2011, US Patent No.: 8,014,263 (MERL).
- 21. “Beamforming with imperfect CSI,” granted, Feb. 2012, US Patent No.: 8,112,038 (FutureWei).
- 22. “Simulcasting MIMO communication system,”
 - granted, February 2012, US Patent No.: 8,116,260 (T),
 - granted, April 2014, US Patent No.: 8,705,452 (T),
 - granted, January 2017, US Patent No.: 9,543,992 (T).
- 23. “Hot-spot wireless access exploiting shadowing diversity of distributed antennas,” granted, April 2013, US Patent No.: 8,428,653 (MERL).

D. Presentations

D.1 Keynote Addresses and Plenary Lectures

- *Multi-Carrier and Multi-User Diversity*, Keynote Talk at *2005 International Conference on Communications, Circuits, and Systems (ICCCAS'05)*, Hong Kong, May 2005.
- *Cross-Layer Optimization for Spectrum- and Energy-Efficient Wireless Networks*
 - Keynote Talk at *Wireless Communications Workshop* at National Chiao Tung University, Taiwan, December 2008.
 - Keynote Talk at *International Conference on Wireless Communications and Signal Processing*, Suzhou, China, October 2010.
- *Device-to-Device Communications: Resource Allocation and Mode Selection*
 - Keynote talk at *IEEE WCNC'15*, New Orleans, LA, USA, March 2015.
 - Plenary talk at *IEEE ICNC'16*, Kauai, Hawaii, USA, February 2016.
 - IEEE VTS Distinguished Lecture at Peking University, Beijing, China, March 2017.
 - IEEE VTS Distinguished Lecture at Aalborg University, Aalborg, Denmark, June 2017.
 - IEEE VTS Distinguished Lecture at Lund University, Lund, Sweden, March 2018.
- *LTE in Unlicensed Spectrum*
 - IEEE VTS Distinguished Lecture at University of Waterloo, Waterloo, Canada June 2016.
 - Keynote talk at *IEEE/CIC ICC 2016* at Chengdu, China, July 2016.
 - IEEE VTS Distinguished Lecture at National Cheng Kung University, Tainan, Taiwan, January 2017.
 - Keynote talk at *National Symposium on Telecommunications* at Sun Moon Lake, Taiwan, January 2017.
 - IEEE VTS Distinguished Lecture at University of Manitoba, Winnipeg, Canada, February 2017.
 - IEEE VTS Distinguished Lecture at Seoul National University, Seoul, South Korea, March 2017.

- Keynote speech at the 2nd *Wireless Silk Road* at Beijing, China, July 2017.
- Keynote talk at *Workshop on 5G Networks Using Unlicensed Spectrum* at *IEEE Globecom'17*, Singapore, December 2017.
- *Signal Transmission and Processing for mmWave and Teraherze Communications*
 - Keynote Speech at *IEEE INFOCOM 2017 Workshop on 5G New Radio (NR) Technologies*, May 2017.
- *Spatial-Wideband Effect in Massive MIMO (with B.-L. Wang, F.-F. Gao, S. Jin, and H. Lin)*
 - Plenary Talk at the *23rd Asian-Pacific Conference on Communications*, December 2017, Perth, Australia.
- *Resource Allocation for Vehicular Communications*
 - IEEE VTS Distinguished Lecture at Chalmers University of Technology, Gothenburg, Sweden, March 2018.
 - IEEE VTS Distinguished Lecture at Linköping University, Linköping, Sweden, March 2018.
 - Keynote Speech at the *14th International Wireless Communications and Mobile Computing Conference (IWCMC 2018)*, Limassol, Cyprus, June 2018.
 - IEEE VTS Distinguished Lecture at Carleton University, Ottawa, Canada, June 2018.
- *Deep Learning in Physical Layer Communications*
 - IEEE VTS Distinguished Lecture at University College London, London, UK, August 2018.
 - Keynote Talk at *International Conference on Wireless Communications and Signal Processing*, Hangzhou, China, October 2018.
 - Keynote Talk at the *16th IEEE International Conference on Communications Systems*, Chengdu, China, December 2018.
 - ACCESS Distinguished Lecture at KTH, Stockholm, Sweden, April 2019.
 - Keynote Talk (Virtual) at Workshop on ISCC, IEEE/ICIC ICC, Xiamen, China, July 2021.
- *Deep Learning based Wireless Resource Allocation*
 - Keynote Talk at IEEE/CIC ICC 2019, Changchun, China, August 2019.
- *Deep Learning in (Wireless) Communications*
 - Keynote Talk (Virtual) at International Workshop on 5G Long Term Evolution and Intelligent Communication, IEEE ICC'2020, June 2020.
 - Keynote Speech at the 2nd Tsinghua-Berkey Shenzhen Institute Workshop on Learning Theory, Shenzhen, China, July 2020.
 - Keynote Speech (Virtual) at the Workshop on Integrated Sensing, Computation and Communications toward 6G at the IEEE/CIC ICC 2021, Xiamen, China, July 2021.
 - Keynote Speech (Virtual) at the Workshop on Artificial Intelligence for Autonomous Vehicular Mobile Networks at the IEEE VTC2021-Fall, September 2021.
- *From Conventional to Semantic Communications based on Deep Learning*
 - Keynote talk (Virtual) at IEEE Globecom'21 Workshop, Madrid, Spain, December 2021.

D.2 Invited Conference and Workshop Presentations

- *From Physical to Cross Layer Optimization*, Invited talk at Future Mobile Communication Forum, Dunhuang, China, July 2007.
- *OFDM, SC-FDE, and EST-based Modulation*, invited talk at OFDM Workshop at Santa Clara University, Santa Clara, CA, October 2008.
- *Signal Processing for Cognitive Radio*, Invited talk at Huawei Dynamic Spectrum Sharing Symposium, Chengdu, China, April 2010.
- *Device-to-Device Communications: Resource Allocation and Mode Selection*, Invited talk at IEEE ChinaSIP, Chengdu, China, July 2015.
- *LTE in Unlicensed Spectrum*
 - Distinguished invited talk at IEEE WCNC'16, Doha, Qatar, April 2016.
 - Invited talk at Sino-Finland Wireless Workshop in Nanjing, China, May 2016.
 - Invited talk at Intel Semi-Annual Meeting at Hefei, China, July 2016.
- *Deep Learning in Physical Layer Communications*

- Invited talk at Machine Learning for 5G at ITU Meeting, Santa Clara, CA, July 2018.

D.3 Invited Seminar Presentations

- *OFDM for wireless communications*, Invited seminar at
 - University of Maryland, College Park, MD, April 1998.
 - Southeast University, Nanjing, Jiangsu, China, June 1999.
 - Yangzhou University, Yangzhou, Jiangsu, China, June 1999.
 - Hughes Networks, Germantown, MD, February 2001.
 - Philips Research, Briarcliff Manor, NY, February 2001.
 - L. G. Electronics, Inc., San Diego, CA, April 2002.
 - Agere Systems, Murray Hill, NJ, May 2002.
- *OFDM for wireless communications: Techniques for capacity improvement*, Invited seminar at
 - New Jersey Institute of Technology, Newark, NJ, December 1998.
 - Bell Labs of Lucent Technologies, Holmdel, NJ, May 2000.
 - Nortel Networks at Ottawa, Canada, October 2000.
 - Conexant Systems, Inc. at Orange County, CA, November 2000.
 - Chinese Academy of Sciences (CAS), Shanghai, China, July 2003.
- *Spatial-temporal receivers for wireless communications with ISI and CCI*, Invited seminar at Conexant Systems, Inc. at Orange County, CA, November 2000.
- *Blind channel identification and equalization*, Invited seminar at Intel Corp., Morganville, NJ, February 2001.
- *MIMO-OFDM*, Invited seminar at
 - University of Maryland, College Park, MD, February 2002.
 - Mitsubishi Electric Research Lab., Murray Hill, NJ, September 2002.
 - Bell Labs of Lucent Technologies, Holmdel, NJ, September 2002.
 - Dept. of Communication Eng., National Chiao Tung University, Taiwan, November 2002.
- *OFDM for wireless communications: MIMO techniques and joint physical-MAC layer optimization*, Invited seminar at
 - Motorola Labs, Schaumburg, IL, December 2002.
 - Nokia Research Center, Irving, TX, February 2003.
 - Texas Instruments, Dallas, TX, February 2003.
 - Samsung, Seoul, Korea, April 2003.
 - L. G. Electronics, Korea, April 2003.
 - Southeast University, Nanjing, Jiangsu, China, July 2003.
 - Chinese Academy of Sciences (CAS), Shanghai, China, July 2003.
 - Tsinghua University, Beijing, China, September 2003.
- *Advanced OFDM access technology*, Invited seminar at Nortel Networks at Ottawa, Canada, March 2002.
- *Overview of UWB System*, Invited seminar at
 - National Taiwan University, Taiwan, November 2002,
 - University of Electronic Science and Technology of China, Chengdu, Sichuan, China, July 2003.
- *Advanced MIMO-OFDM technology*, Invited seminar at Nortel Networks at Ottawa, Canada, November 2003.
- *Cross-layer Optimization for OFDM based Wireless Networks*, Invited seminar at
 - Nortel Networks at Ottawa, Canada, May 2004.
 - University of Waterloo, Waterloo, Canada, May 2004.
 - Vienna University of Technology, Vienna, Austria, June 2004.
 - University of Electronic Science and Technology of China, Chengdu, China, June 2006.
- *MIMO-OFDM for wireless communications*, Invited seminar at
 - L. G. Electronics, San Diego, CA, November 2004.
 - University of Victoria, Melbourne, Australia, May 2006.

- *Limit-Approaching Signal Detection and Equalization based on Energy Spreading Transform*, Invited seminar at
 - National Sun Yat-Sen University, Taiwan, May 2005.
 - National Taiwan University, Taiwan, May 2005.
 - Electronics and Telecommunication Research Center, Korea, May 2005.
 - City University of Hong Kong, Hong Kong, China, December 2005.
 - University of Electronic Science and Technology of China, Chengdu, China, December 2005.
 - Beihang University, Beijing, China, May 2005.
 - The National ICT Australia Wireless Winter School, Melbourne, Australia, May 2006.
 - Hong Kong University of Science and Technology, Hong Kong, China, June 2007.
 - Xidian University, Xian, China, June 2007.
 - Southeast University, Nanjing, China, June 2007.
- *Multi-Carrier and Multi-User Diversity*, Invited seminar at
 - Electronics and Telecommunication Research Center, Korea, May 2005.
 - Beihang University, Beijing, China, May 2005.
 - Nanyang Technical University, Singapore, June 2005.
 - Tsinghua University, Beijing, China, June 2005.
 - Intel Corp., Santa Clara, CA, July 2005.
 - Communication Research Labs, Motorola, Inc., Chicago, IL, October 2005.
 - University of Delaware, Newark, DE, November 2005.
 - Nokia Research Center, Dallas, TX, December 2005.
 - University of Electronic Science and Technology of China, Chengdu, China, June 2006.
- *Cognitive Radio with Cooperative Diversity*, Invited seminar at
 - National Sun Yat-Sen University, Taiwan, May 2005.
 - National Taiwan University, Taiwan, May. 2005.
 - Beihang University, Beijing, China, May 2005.
 - University of Electronic Science and Technology of China, Chengdu, China, June 2006.
- *Recent Results in MIMO OFDM for Wireless Communications*, Invited seminar at
 - Electronics and Telecommunication Research Center, Korea, May 2005.
 - Yonsei University, Korea, May 2005.
 - Beihang University, Beijing, China, May 2005.
 - Beijing University of Posts and Telecommunications, Beijing, China, May 2005.
 - Shanghai Jaotong University, Shanghai, China, May 2005.
 - Institute for Inforcomm Research, Singapore, May 2005.
 - Intel China Research Center Ltd., Beijing, China, June 2005.
 - Global Telecom Solutions Sector, Motorola, Inc., Chicago, IL, October 2005.
 - Personal Communication Sector, Motorola, Inc., Chicago, IL, October 2005.
 - Future Wei Technologies, Plano, Texas, December 2005.
 - Applied Science and Technology Institute, Hong Kong, China, December 2005.
 - Huawei Technologies Co., Ltd., Shenzhen, China, December 2005.
 - University of Electronic Science and Technology of China, Chengdu, China, June 2006.
- *Some Issues in Wireless Communications*, Invited seminar at
 - University of Electronic Science and Technology of China, Chengdu, China, September 2004.
 - Southeast University, Nanjing, China, December 2005.
 - Huawei Technologies Co., Ltd., Shanghai, China, May 2008.
- *MIMO and Cross-Layer Optimization for Wireless Communications*, Invited seminar at
 - Nortel Networks at Ottawa, Canada, November 2006.
 - Texas Instruments, Dallas, TX, January 2007.
- *MIMO Techniques for Wireless Communications*, Invited seminar at
 - Huawei Technologies Co., Ltd., Shenzhen, China, June 2006.
- *MIMO OFDM for Wireless Communications*, Invited seminar at
 - Beihang University, Beijing, China, June 2007.

- Xidian University, Xian, China, June 2007.
- University of Electronic Science and Technology of China, Chengdu, China, June 2007.
- *Channel-Aware Random Access in Wireless Multicarrier Networks*, Invited seminar at
 - Beihang University, Beijing, China, June 2007.
 - University of Electronic Science and Technology of China, Chengdu, China, June 2007.
 - Carleton University, Ottawa, Canada, August 2007.
 - Motorola Labs, Schaumburg, IL, October 2007.
- *Channel-Aware Access in Wireless Networks*, Invited seminar at Intel Corporation, Santa Clara, CA, October 2007.
- *Signal Processing for Cognitive Radio*, Invited seminar at
 - Fururewei Technologies, Dallas, TX, December 2007.
 - Beihang University, Beijing, China, May 2008.
 - National Chiao Tung University, Taiwan, December 2008.
 - National Dong Hwa University, Hualien, Taiwan, December 2008.
 - National Tsing Hua University, Hsinchu, Taiwan, December 2008.
 - Fujitsu Laboratories Ltd., Kanagawa, Japan, October 2009.
- *US Universities: Students, Faculty, and Research*, Invited seminar at University of Electronic Science and Technology of China, Chengdu, China, September 2008.
- *Cross-Layer Optimization for Spectrum- and Energy-Efficient Wireless Networks*, Invited seminar at
 - Fururewei Technologies, Dallas, TX, October 2008.
 - Beihang University, Beijing, China, March 2009.
 - Intel Corporation, Santa Clara, CA, July 2009.
 - Tohoku University, Sendai, Japan, October 2009.
 - Institute for Inforcomm Research, Singapore, March 2010.
 - University of Electronic Science and Technology of China, Chengdu, China, March 2010.
 - Huawei University Day, Chicago, IL, July 2010.
 - Xi'an Jiaotong University, Xi'an, China, October 2010.
 - University of British Columbia, Vancouver, CA, November 2010.
- *OFDM, SC-FDE, and EST-based Modulation*, invited seminar at
 - Intel Corporation, Santa Clara, CA, October 2008.
 - Huawei University Day, Shanghai, China, December 2008.
 - Industrial Technology Research Institute, Hsinchu, Taiwan, December 2008.
 - University of Electronic Science and Technology of China, Chengdu, China, December 2008.
 - Oak Ridge National Lab., Oak Ridge, TN, February 2009.
 - Beijing Jiaotong University, Beijing, China, March 2009.
 - Panasonic, San Jose, CA, July 2009.
 - Osaka Prefecture University, Osaka, Japan, October 2009.
- *Physical Layer and Cooperation Techniques for Broadband Wireless Transmission*, invited seminar at
 - University of McGill, Montreal, Canada, September 2009.
 - University of Electronic Science and Technology of China, Chengdu, China, October 2009.
 - Institute for Inforcomm Research, Singapore, March 2010.
 - Southeast University, Nanjing, China, October 2010.
 - Peking University, Beijing, China, March 2011.
 - Zhejiang University, Hanzhou, China, March 2011.
 - Huawei Technologies Co., Ltd., Chengdu, China, March 2011.
 - IBM China Research Lab., Beijing, China, March 2011.
 - Yonsei University, Seoul, South Korea, August 2012.
- *Cross-Layer Optimization for Energy-Efficiency Communications*, invited seminar at
 - Huawei Green Radio Workshop, Shanghai, China, May 2011.
 - Southwestern Jiaotong University, Chengdu, China, June 2011.
- *Energy- and Spectral-Efficiency Trade-off in Wireless Communications*, invited seminar at
 - Huawei University Day, Chicago, IL, November 2011.

- China Mobile, Beijing, China, August 2013.
- *Potential Techniques for Future Wireless Networks*, invited seminar at
 - Huawei University Days, Ottawa, Canada, August 2012.
- *Spatial-Frequency Signal Alignment for Opportunistic Transmission*, invited seminar at
 - Huawei North America 5G Workshop, November 2013.
- *Device-to-Device Communications: Resource Allocation and Mode Selection*
 - The University of Southampton, Southampton, UK, June 2015.
 - Oxford University, Oxford, UK, June 2015.
 - The University of Reading, Reading, UK, June 2015.
 - Southeast University, Nanjing, China, July 2015.
 - Zhejiang University, Hangzhou, China, July 2015.
 - National University of Singapore, Singapore, January 2016.
 - Nanyang Technological University, Singapore, January 2016.
 - University of New South Wales, Sydney, Australia, January 2016.
 - Nanjing University of Post and Telecommunications, Nanjing, China, May 2016.
 - Intel Lab, Portland, Oregon, June 2016.
 - Yonsei University, Seoul, South Korea, March 2017.
 - Beijing University of Post and Telecommunications, July 2017.
 - Shanghai University, July 2017
- *LTE in Unlicensed Spectrum*, Invited talk at
 - Southeast University, Nanjing, China, May 2016.
 - King Abdullah University of Science and Technology (KAUST), Thuwal, Kingdom of Saudi Arabia, June 2016.
 - University of Agder, Grimstad, Norway, June 2017.
 - University of Electronic Science and Technology of China (UESTC), Chengdu, China, July 2017.
 - Beijing University of Post and Telecommunications, Beijing, China, July 2017.
 - Queen Mary University of London, UK, November 2017.
 - Institute for Infocomm Research, Singapore, December 2017.
- *Intelligent Processing for Future Communication Systems*, Invited talk at
 - University of Lancaster, Lancaster, UK, November 2017.
 - Cambridge University, Cambridge, UK, November 2017.
 - University of Electronic Science and Technology of China, December 2017.
- *Resource allocation for Vehicular Communications*, Invited talk at
 - Intel Lab, Santa Clara, CA, January 2018.
 - Beijing University of Post and Telecommunications, Beijing, China, April 2018.
 - Zhejiang University, Zhoushan, China, April 2018.
 - Hong Kong Chinese University in Shenzhen, Shenzhen, China, July 2018.
- *Deep Learning in Physical Layer Communications*
 - Southeast University, Nanjing, China, December 2018.
 - Peking University, Beijing, China, December 2018.
 - Beijing University of Post and Telecommunications, June 2019.
 - Hong Kong Polytechnique University, August 2019.
 - National Chiao Tung University, Taiwan, November 2019.
 - Nanjing University of Post and Telecommunications, January 2020.
 - Nanjing University of Science and Technology, January 2020.
 - Sun Yat-Sen University, Guangzhou, January 2020.
- *Deep Learning based Wireless Resource Allocation*
 - Hong Kong Polytechnique University, HK, August 2019.
 - Beijing University of Post and Telecommunications, Beijing, October 2019.
 - Ryerson University, Toronto, October 2019.
 - National Chiao Tung University, Taiwan, November 2019.
- *Deep Learning in (Wireless) Communications*

- IEEE ComSoc TCCN Invited (Virtual) Talk, July 2020.
- Imperial College London, July 2020.
- Invited (Virtual) Talk at a workshop in Xidian University, Xi'an, China, October 2020.
- Invited (Virtual) Talk at a workshop in Zhejiang University, Hangzhou, China, November 2020.
- Invited (Virtual) Talk at Xi'an Jiaotong University, Xi'an, China, November 2020.
- Invited (Virtual) Talk at Beijing University of Post and Telecommunications, Beijing, China, November 2020.
- Invited (Virtual) Talk at a workshop in Harbin Institute of Technology, Shenzhen, China, November 2020.
- Invited (Virtual) Talk at University of Texas, Austin, USA, April 2021.
- Invited (Virtual) Talk at Qualcomm, San Diego, USA, May 2021.
- Invited (Virtual) Talk at University of Glasgow, Scotland, UK, May 2021.
- Invited (Virtual) Talk at Toshiba, Bristol, UK, May 2021.
- Invited (Virtual) Talk at MediaTek, Cambridge, UK, June 2021.
- Invited (Virtual) Talk at A-Star, Singapore, June 2021.
- Invited (Virtual) Talk at Furturewei University, Chicago, August 2021.
- *MmWave Massive MIMO: Spatial-Wideband Effect and ML-based Processing*
 - Invited (Virtual) Talk at Huawei Workshop, Stockholm, Sweden, April 2021.
- *From Conventional to Semantic Communications based on Deep Learning*
 - Invited (Virtual) Talk at Huawei Workshop, Paris, France, December 2021.
 - Invited (Virtual) Talk at Nanjing University of Post and Telecommunications, Nanjing, China, December 2021.

D4. Others – Tutorials and Panel Presentations

- *OFDM for wireless communications, (tutorial)* (with Prof. L. Cimini, Jr. of U. of Delaware and Prof. Gordon Stuber)
 - *IEEE 1998 Global Telecommunications Conference*, Sydney, Australia, November 1998.
 - *IEEE 1999 (Spring) Vehicular Technology Conference*, Houston, TX, May 1999.
 - *IEEE 1999 International Conference on Communications*, Vancouver, Canada, June 1999.
 - *IEEE 1999 Global Telecommunications Conference*, Rio de Janeiro, Brazil, December 1999.
 - *IEEE 2000 (Spring) Vehicular Technology Conference*, Tokyo, Japan, May 2000.
 - *IEEE 2000 (Fall) Vehicular Technology Conference*, Boston, MA, September 2000.
 - *IEEE 2000 Global Telecommunications Conference*, San Francisco, CA, November 2000.
 - *IEEE 2001 International Conference on Communications*, Helsinki, Finland, June 2001.
 - *IEEE 2001 (Fall) Vehicular Technology Conference*, Atlantic City, NJ, September 2001.
 - *IEEE 2001 Global Telecommunications Conference*, San Antonio, TX, November 2001.
 - *IEEE 2002 International Conference on Communications*, New York, NY, May 2002.
 - *IEEE 2002 (Spring) Vehicular Technology Conference*, Birmingham, AL, May 2002.
 - *IEEE 2002 Global Telecommunications Conference*, Taipei, Taiwan, November 2002.
 - *IEEE 2003 International Conference on Communications*, Anchorage, Alaska, May 2003.
 - *IEEE 2003 (Spring) Vehicular Technology Conference*, Jeju, Korea, April 2003.
 - *IEEE 2003 Global Telecommunications Conference*, San Francisco, CA, December 2003.
 - *IEEE 2004 Wireless Communications and Networking Conference*, Atlanta, Georgia, March 2004.
 - *IEEE 2004 International Conference on Communications*, Paris, France, June 2004.
 - *IEEE 2004 Global Telecommunications Conference*, Dallas, TX, December 2004.
- *Cross-Layer Optimization for Spectrum- and Energy-Efficient Wireless Networks, (tutorial)* (with Dr. G.-W. Miao of KTH, Royal Institute of Technology, Sweden)
 - *2011 IEEE Global Telecommunications Conference*, Houston, TX, December 2011.
 - *23rd IEEE International Symposium on Personal, Indoor and Mobile Radio Communications*, Sydney, Australia, September 2012.
 - *2012 IEEE Global Telecommunications Conference*, Anaheim, CA, December 2012.

- 2018 IEEE International Conference on Communications, Kansas City, MO, June 2018.
- *Technology/Business Application Panel: Practical MIMO (penal member)*
 - IEEE WCNC'07 in Hong Kong, March 2007.
 - ASTRI Forum, in Hong Kong, March 2007.
- *Big Data Signal Processing for Communication Networks* (with H. Zhu and Z.-J. Zheng, tutorial)
 - IEEE 2017 Global Telecommunications Conference, Singapore, December 2017.
- *Deep Learning for Communications (tutorial)* (with Dr. Z.-J. Qin, Queen Mary University London)
 - 2020 IEEE Global Communications Conference (Globeom'20), Taipei, Taiwan, December 2020.
 - 2021 IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'21), Virtual Conference, September 2021.
 - 2021 IEEE 94th Vehicular Technology Conference (VTC'21 Fall), Virtual Conference, September 2021.
- *Semantic Communications: Communication beyond Shannon Paradigm (tutorial)* (with Dr. Z.-J. Qin, Queen Mary University London)
 - 2021 IEEE Global Communications Conference (Globeom'21), Madrid, Spain, December 2021.
 - 2022 IEEE Wireless Communications and Networking Conference (WCNC'22), Austin, TX, USA, April 2022.
 - 2022 IEEE International Conference on Communications (ICC'22), Seoul, Korea, May 2022.

E. Grants and Contracts

1. **Title of Project:** Special-Temporal Processing for EDGE System
Agency/Company: Mobilink Telecomm.
Total Dollar Amount: \$25,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since September 2000
Candidate's Share: \$25,000
2. **Title of Project:** Spatial-Temporal Processing for Wideband CDMA Systems
Agency/Company: Bell Labs of Lucent Tech.
Total Dollar Amount: \$36,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since January 2001
Candidate's Share: \$36,000
3. **Title of Project:** MIMO-OFDM Techniques
Agency/Company: Hughes Network Systems
Total Dollar Amount: \$36,884
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since June 2001
Candidate's Share: \$36,884
4. **Title of Project:** MIMO OFDM for Wireless Communications
Agency/Company: Yamacraw
Total Dollar Amount: \$20,463
Role: PI
Collaborators: No.
Period of Contractor: July 2001 – June 2002
Candidate's Share: \$20,463
5. **Title of Project:** Broadband MIMO OFDM Wireless Access
Agency/Company: National Science Foundation

Total Dollar Amount: \$1,969,569

Role: co-PI

Collaborators: Gordon Stuber, John Barry, Mary Ingram, and Steven McLaughlin.

Period of Contractor: October 2001 – September 2005

Candidate's Share: \$350,756

6. **Title of Project:** Cross-Layer Optimization for Better Resource Allocation in Future Wireless Home Networks
Agency/Company: Georgia Tech Broadband Institute
Total Dollar Amount: \$30,000
Role: PI
Collaborators: Jun Xu and Benny Bing
Period of Contractor: July 2002 – June 2003
Candidate's Share: \$30,000
7. **Title of Project:** MIMO OFDM for Wireless Communications
Agency/Company: Yamacraw
Total Dollar Amount: \$22,800
Role: PI
Collaborators: No.
Period of Contractor: July 2002 – June 2003
Candidate's Share: \$22,800
8. **Title of Project:** Advanced OFDM Access Technology
Agency/Company: Nortel Network Systems
Total Dollar Amount: \$132,260
Role: PI
Collaborators: No.
Period of Contractor: August 2002 – July 2004
Candidate's Share: \$132,260
9. **Title of Project:** Delay Profile based Location Estimation with New Wireless Application
Agency/Company: Georgia Tech Broadband Institute
Total Dollar Amount: \$20,000
Role: PI
Collaborators: Fred Juang
Period of Contractor: July 2003 – June 2004
Candidate's Share: \$20,000
10. **Title of Project:** Cross-Layer Optimization for Better Resource Allocation in Future Wireless Home Networks
Agency/Company: Georgia Tech Broadband Institute
Total Dollar Amount: \$20,000
Role: PI
Collaborators: Jun Xu and Benny Bing
Period of Contractor: July 2002 – June 2003
Candidate's Share: \$20,000
11. **Title of Project:** MIMO-OFDM for Wireless LAN
Agency/Company: Nokia Research Center
Total Dollar Amount: \$40,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since March 2004
Candidate's Share: \$40,000
12. **Title of Project:** Standard Activities in IEEE 802.11n
Agency/Company: Mitsubishi Electric Research Laboratories
Total Dollar Amount: \$15,000

- Role:** PI
Collaborators: No.
Period of Contractor: unrestricted gift since November 2004
Candidate's Share: \$15,000
13. **Title of Project:** MIMO-OFDM for Broadband Wireless Communications
Agency/Company: Nokia Research Center
Total Dollar Amount: \$30,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since May 2005
Candidate's Share: \$30,000
14. **Title of Project:** Exploiting Diversity in Wireless Communications
Agency/Company: Motorola SABA Program
Total Dollar Amount: \$94,000
Role: PI
Collaborators: No.
Period of Contractor: August 2005 – July 2008
Candidate's Share: \$94,000
15. **Title of Project:** Research Alliance in Communications
Agency/Company: Army Research Laboratory (ARL).
Total Dollar Amount: \$2,702,882
Role: co-PI
Collaborators: Gordon Stuber, G.-T. Zhou, etc. (over 10 people from different universities)
Period of Contractor: October 2002 – September 2009
Candidate's Share: \$467,000
16. **Title of Project:** MIMO-OFDM for Broadband Wireless Communications
Agency/Company: Nokia Research Center
Total Dollar Amount: \$30,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since 2006
Candidate's Share: \$30,000
17. **Title of Project:** Cognitive Radio (with Prof. B.-H. Juang and Dr. Benny Bing)
Agency/Company: Georgia Tech Broadband Institute
Total Dollar Amount: ~\$10,000
Role: PI
Collaborators: No.
Period of Contractor: July 2006 – June 2007
Candidate's Share: equivalent to GRA support of 1 Ph.D. student for 1 semester.
18. **Title of Project:** Cross-Layer Optimization in Wireless Networks
Agency/Company: Intel Co.
Total Dollar Amount: \$150,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since December 2006
Candidate's Share: \$150,000
19. **Title of Project:** Cooperative Diversity in Wireless Communications
Agency/Company: Nokia Research Center
Total Dollar Amount: \$20,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since 2007

- Candidate's Share:** \$20,000
20. **Title of Project:** COGNET: Cognitive Radio Networks based on OFDM
Agency/Company: National Science Foundation
Total Dollar Amount: \$600,000
Role: co-PI
Collaborators: Ian Akyildiz
Period of Contractor: August 2007 – August 2011
Candidate's Share: \$210,000
 21. **Title of Project:** Basic Issues in Cognitive Radio
Agency/Company: Huawei Inc.
Total Dollar Amount: \$90,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since September 2007
Candidate's Share: \$90,000
 22. **Title of Project:** Cooperative Relay for Wireless Networks
Agency/Company: Nokia Siemens Networks
Total Dollar Amount: \$21,600
Role: PI
Collaborators: No.
Period of Contractor: January 2008 – July 2008
Candidate's Share: \$21,600
 23. **Title of Project:** Multi-user MIMO for IEEE 802.16m
Agency/Company: Mitsubishi Electric Research Laboratories
Total Dollar Amount: \$45,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since April 2009
Candidate's Share: \$45,000
 24. **Title of Project:** Modulation and Signal Detection for Wireless Communications for High-Speed Train
Agency/Company: Mitsubishi Electric Research Laboratories
Total Dollar Amount: \$20,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since April 2010
Candidate's Share: \$20,000
 25. **Title of Project:** Cross-Layer Optimization
Agency/Company: Huawei Inc.
Total Dollar Amount: \$40,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since July 2010
Candidate's Share: \$40,000
 26. **Title of Project:** Application of Cognitive Radio for Multi-Radio Femtocell Networks
Agency/Company: Intel Co.
Total Dollar Amount: \$50,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since Sept. 2010
Candidate's Share: \$50,000
 27. **Title of Project:** Distributed PHY/MAC Optimization for Energy and Spectral Efficient Wireless Networks
Agency/Company: National Science Foundation

- Total Dollar Amount:** \$470,000
Role: PI
Collaborators: Len Cimini, Jr.
Period of Contractor: August 2010 – August 2013
Candidate's Share: \$250,000
28. **Title of Project:** Cognitive Radio Techniques and Its Applications
Agency/Company: Sandia National Labs/ Sandia Corp.
Total Dollar Amount: \$45,000
Role: PI
Collaborators: No.
Period of Contractor: January 25 2011 – September 2011
Candidate's Share: \$45,000
29. **Title of Project:** Cross-Layer Optimization
Agency/Company: Huawei Inc.
Total Dollar Amount: \$30,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since February 2011
Candidate's Share: \$30,000
30. **Title of Project:** Cross-Layer Optimization
Agency/Company: Huawei Inc.
Total Dollar Amount: \$30,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since September 2011
Candidate's Share: \$30,000
31. **Title of Project:** Efficient Management and Opportunistic Usage of Radio Spectrum based Graph Theory
Agency/Company: National Science Foundation
Total Dollar Amount: \$396,000
Role: PI
Collaborators: X.-X. Yu
Period of Contractor: September 2012 – August 2015
Candidate's Share: \$226,949
32. **Title of Project:** MIMO-VFDM for 5G Networks
Agency/Company: Huawei Inc.
Total Dollar Amount: \$30,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since January 2013
Candidate's Share: \$30,000
33. **Title of Project:** Ultra-broadband communication networks in the TeraHertz
Agency/Company: National Science Foundation
Total Dollar Amount: \$300,000
Role: co-PI
Collaborators: Ian Akyildiz and Mary Ann Weitnauer
Period of Contractor: September 2013 – August 2015
Candidate's Share: \$86,228
34. **Title of Project:** MIMO-VFDM for 5G Networks
Organization: Huawei Inc.
Total Dollar Amount: \$40,000
Role: PI
Collaborators: No.

- Period of Contractor:** unrestricted gift since November 2013
Candidate's Share: \$40,000
35. **Title of Project:** MIMO-VFDM for 5G Networks
Agency/Company: Huawei Inc.
Total Dollar Amount: \$30,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since May 2014
Amount Funded: \$30,000
36. **Title of Project:** D2D Wireless Networks: An Interference Nightmare or Resource Allocation Auspice
Agency/Company: National Science Foundation
Total Dollar Amount: \$370,000
Role: co-PI
Collaborators: Han Zhu
Period of Contractor: August 2014 – August 2017
Candidate's Share: \$184,662
37. **Title of Project:** Integrated (Licensed-Unlicensed) Spectrum Access in 5G Networks
Agency/Company: Huawei Inc.
Total Dollar Amount: \$30,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since August 2014
Candidate's Share: \$30,000
38. **Title of Project:** Collaborative Research: Overcoming Technological Challenges for Spectrum Trading
Agency/Company: National Science Foundation
Total Dollar Amount: \$455,000
Role: PI
Collaborators: X.-X. Yu
Period of Contractor: October 2014 – September 2017
Candidate's Share: \$227,499
39. **Title of Project:** D2D Communications
Agency/Company: Intel Co.
Total Dollar Amount: \$75,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since May 2016
Candidate's Share: \$75,000
40. **Title of Project:** D2D-based Vehicular Network Design with Machine Learning
Agency/Company: Intel Co.
Total Dollar Amount: \$75,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since April 2017
Candidate's Share: \$75,000
41. **Title of Project:** Collaborative Research: Energy-Efficient Heterogeneous Network Virtualization with Spectrum-Power Trading
Agency/Company: National Science Foundation
Total Dollar Amount: \$300,000
Role: PI
Collaborators: Han Zhu
Period of Contractor: August 2017 – July 2020
Candidate's Share: \$300,000

42. **Title of Project:** Machine Learning for Signal Detection in Massive MIMO Applications in mmWave Systems
Agency/Company: Intel Co.
Total Dollar Amount: \$75,000
Role: PI
Collaborators: No.
Period of Contractor: unrestricted gift since June 2018
Candidate's Share: \$75,000
43. **Title of Project:** NeTS Small: Collaborative Research: Improving Spectrum Efficiency for Hyper-Dense IoT Networks
Agency/Company: National Science Foundation.
Total Dollar Amount: \$500,000
Role: PI
Collaborators: Ismail Guvenc and Eyuphan Bulut
Period of Contractor: September 2018 – September 2021
Candidate's Share: \$175,000
44. **Title of Project:** Donation for Chair in Wireless Systems
Agency/Company: Huawei Technologies
Total Dollar Amount: £8,000,000
Role: PI
Period of Contractor: upto May 2031
45. **Title of Project:** Donation for Imperial Workshop in Intelligent Communications
Agency/Company: Huawei Technologies, Co.
Total Dollar Amount: £49,800
Role: PI
Period of Contractor: November 2020
46. **Title of Project:** mmWave Communications
Agency/Company: Qualcomm
Total Dollar Amount: \$80,000=£60,000
Role: PI
Period of Contractor: August 2021
47. **Title of Project:** Native Intelligent Communication Systems
Agency/Company: Huawei Technologies, Co.
Total Dollar Amount: £844,771
Role: PI
Period of Contractor: August 2021
48. **Title of Project:** Subproject Title: Semantic Communications and Sensing in 3D Open Networks
Agency/Company: Funded by UK EPSRC DCMS via University of Surrey
Total Dollar Amount: £ 649,446.4
Role: PI
Collaborator: Dr. Wei Dai, Imperial College
Period of Contractor: March 2023 – March 2025

V. TEACHING/STUDENT GUIDANCE

A. Post-Doc Fellows

1. Dr. Shenglong Zhou, June 2021 – June 2023, research topic: Statistics and machine learning for signal processing and communications.
2. Dr. Sifaou Houssen, June 2021 – August 2023, research topic: Deep Meta-learning for communications.
3. Dr. Huynh Van Nguyen, November 2021 – August 2022, research topic: Intelligent wireless communications.
4. Dr. Shixiong Wang, May 2023 – February 2026: research topic: joint sensing and communications

5. Dr. Jingzhi Hu, September 2024 – August 2026: research topic: semantic communications
6. Dr. Ouya Wang, January 2025 – January 2027: research topic: few-shot learning for communications

B. PhD. Students

B.1 Graduated

1. Hua Zhang: Graduated in fall 2004. Research topic: *OFDM for wireless communications*. First place of employment: SkyWorks Solutions, Inc. 5231-1 California Ave., Irvine, CA 92617; Current place of employment: Professor, Department of Radio Engineering, Southeast University, Nanjing, China.
2. Guocong Song: Graduated in summer 2005. Research topic: *Utility based cross-layer optimization for wireless networks*. First place of employment: Motorola Labs, 600 North U.S. Highway 45, MD: AS-220, Libertyville, IL, USA.
3. Jianxuan Du: Graduated in summer 2005. Research topic: *Layered space-time structure for MIMO-OFDM systems*. First place of employment: Anritsu Company, Corporate Office, 490 Jarvis Dr., Morgan Hill, CA, USA.
4. Taewon Hwang, Graduated in in fall 2005. Research topic: *Iterative techniques based on energy spreading transform for wireless communications*. First place of employment: Assistant Professor (Professor now), Department of Electrical and Electronic Engineering, Yonsei University, Korea, USA.
5. Uzoma A. Onunkwo, Graduated in spring 2006. Research topic: *Time jitter in ultra-wideband (UWB) systems*. Place of employment: Sandia National Laboratories, MS 0806, P. O. Box 5800, Albuquerque, NM, USA.
6. Joon Beom Kim, (Co-advised with Prof. Gordon Stüber), Graduated in fall 2006, Research topic: *Channel estimation for OFDM over wireless channels*. First place of employment: Nortel Network, Richardson, TX 75083, Current place of employment: Intel Lab, Portland, Organ, USA.
7. Wen Jiang, (Co-advised with Prof. Xingxing Yu, Dept. of Math), Graduated in fall 2006, Research topic: *Space-time coding*.
8. Ghurumuruhan Ganesan, Ph.D. thesis defended in Fall 2007. Research topic: *Distributed MAC protocols for channel-aware systems and cognitive radio*.
9. Guowang Miao, Graduated in fall 2009. Research topic: *Cross-layer optimization for spectrum- and energy-efficient networks*. Current place of employment: Associate Professor, KTH, Royal Institute of Technology, Sweden, since November 2011.
10. Jun Ma, Graduated in fall 2010, Research topic: *Signal Processing in Wireless Communications*, Place of employment: MediaTek, CA, USA.
11. Xiangwei Zhou, Graduated in fall 2011, Research topic: *Efficient spectrum sensing and utilization for cognitive radio*, Current place of employment: Associate Professor, School of Electrical Engineering and Computer Science, Louisiana State University (LSU), Baton Rouge, LA, USA.
12. Cong Xiong, Graduated in summer 2014, Research topic: *Energy-efficient design in wireless communications networks*, Place of employment: MediaTek, LA, CA; Current place of employment: Intel Lab, Portland, Oregon, USA
13. Lu Lu, Graduated in 2015, Research topic: *Spectral-efficient design in modern wireless communications networks*, Place of employment: Intel Lab, Portland, Oregon, USA (Received 2014 Excellent GRA Award from the School of ECE, Georgia Tech)
14. Deawon Lee, Graduated in 2016, Research topic: *Inter-Cell Interference Management for Cellular Networks*, Place of employment: Intel Lab, Portland, Oregon, USA.
15. Cen Lin, Graduated in Spring 2017, Research topic: *Physical layer techniques for TeraHertz communications*, Place of employment: Apple, Inc., CA, USA.
16. Le Liang, Fall 2018, Research topic: *Resource allocation for vehicle communications*, Place of employment: Intel Lab, Portland, Oregon, USA; Current place of employment: Professor at Southeast University, Nanjing, China.
17. Hao Ye, Graduated Fall 2020, Research Topic: *Machine learning in wireless communications*, Place of employment: University of California at Santa Cruz, CA, USA.
18. Bowen Zhang, Viva April 2025 , Research topic: semantic communications and sensing.

19. Kaidi Xu, Viva September 2025, Research topic: multi-agent reinforcement learning and federated learning for wireless networks.
20. Ouya Wang, Viva October 2025, Research topic: few-shot learning for communications.

B.2. In Progress

1. Yanzhen Liu, September 2022 – present, research topic: spike neural networks for communications
2. Yangjing Wang, September 2025 – present, research topic: TBD
3. Zeru Fang, September 2025 – present, research topic: TBD

C. Master Students with Thesis

1. Jian Zhu, Fall 2001 – Summer 2003, Research topic: *Resource allocation for home networks*. Place of employment: Ph.D. candidate at Space-Time Propagation Laboratory of the School of ECE, Georgia Tech.
2. Antony Vielmon, (Co-advised with Prof. John Barry), Fall 2000 – Summer 2001, Research topic: *Transmit diversity in wireless communications*, Place of employment: Prosilog s. a., 8 rue Traversiere, Cergy Prefecture 95000, France.
3. Victor Wu, Fall 2005 – Fall 2006, Research Topic: *Cooperative diversity in wireless communications*. Place of employment: Ph.D. candidate at UIUC.
4. Juho Lim, Spring 2015 – Summer 2016, Research topic: signal detection for faster-than-Nyquist rate modulation.

D. Hosted Visiting Scholars/Students

(@ Georgia Institute of Technology)

1. Prof. Houjun Wang, September 2002 – March 2003, Visiting professor from UESTC, China.
2. Prof. Hongbin Xu, March 2004 – September 2004, Visiting professor from UESTC, China.
3. Dr. Jinsam Kwak, September 2004 – September 2005, Post-doctoral fellow from National Seoul University, Korea.
4. Mr. Gang Lin, March 2006 – July 2006, Visiting scholar from the Norwegian University of Science and Technology, Norway.
5. Dr. EunJeong Yim, August 2006 – August 2007, Post-doctoral fellow, Korea
6. Mr. Guodong Zhao, September 2007 – October. 2008, Visiting scholar from Beihang University, China
7. Mr. Jian Liu, September 2007 – September 2008, Visiting scholar from Shandong University, China
8. Mr. Haibo Wang, February 2008 – July 2008, Visiting scholar from Aalborg University, Denmark.
9. Dr. Jong Ho Lee, September 2008 – August 2010, Post-doctoral fellow, Korea.
10. Prof. Xia Wang, October 2008 – October 2009, Visiting professor from Xian Jiaotong University, China.
11. Ms. Ying Zhang, October 2008 – October 2009, Visiting scholar from Xian Jiaotong University, China.
12. Ms. Liying Li, October 2008 – October 2010, Visiting scholar from UESTC, China.
13. Mr. Jiancun Fan, August 2009 – August 2011, Visiting scholar from Xian Jiaotong University, China.
14. Mr. Zhikun Xu, September 2009 – September 2010, Visiting scholar from Beihang University, China
15. Mr. Deli Jia, September 2009 – September 2011, Visiting scholar from UESTC, China.
16. Prof. Gang Wu, October 2009 – October 2010, Visiting professor from UESTC, China.
17. Ms. Fangfang Liu, September 2010 – March 2012, Visiting scholar from BUPT, China.
18. Mr. Hao He, November 2010 – November 2012, Visiting scholar from UESTC, China.
19. Mr. Daquan Feng, August 2011 – August 2013, Visiting scholar from UESTC, China.
20. Ms. Jinping Niu, September 2011 – August 2013, Visiting scholar from Xidian University, China.
21. Prof. Jianhua Shao, September 2011 – March 2012, Visiting professor from Nanjing Normal University, China.
22. Prof. Jiancun Zuo, April 2012 – April 2013, Visiting professor from Shanghai Second Polytechnic University, China.
23. Dr. Jianchun Li, April 2012 – April 2013, Visiting scholar from the State Radio Monitoring Center, China.
24. Mr. Chunlong He, September 2012 – September 2014, Visiting scholar from Southeast University, China.
25. Mr. Yinsheng Liu, November 2012 – June 2013, Visiting scholar from Beijing Jiaotong University, China.

26. Prof. Rugui Yao, January 2013 – December 2013, Visiting professor from Northwestern Polytechnical University, China.
27. Prof. Xingle Feng, January 2013 – December 2013, Visiting professor from Chang'an University, China.
28. Prof. Zhisong Bie, June 2013 – May 2014, Visiting professor from Beijing University of Post and Telecommunications, China.
29. Prof. Guanding Yu, July 2013 – June 2015, Visiting professor from Zhejiang University, China.
30. Prof. Dianwu Yue, September 2013 – February 2014, Visiting professor from Dalian Maritime University, China.
31. Mr. Jian Yu, September 2013 – September 2015, Visiting scholar from Beijing University of Post and Telecommunications, China.
32. Mr. Wei Guo, October 2013 – October 2015, Visiting scholar from Xian Jiaotong University, China.
33. Dr. Xu Bao, November 2013 – November 2014, Visiting professor from Jiangsu University, China.
34. Dr. Liang Chang, May 2014 – May 2015, Visiting scholar from the State Radio Monitoring Center, China.
35. Prof. Yin Rui, August 2014 – August 2016, Visiting professor from Zhejiang Gongshang University, China.
36. Mr. Yinjun Liu, Sept. 2014 – Aug. 2016, Visiting scholar from Beijing University of Post and Telecommunications, China.
37. Mr. Qingqing Wu, Aug. 2015 – Aug. 2016, Visiting scholar from Shanghai Jiaotong University, China.
38. Mr. Xiaoyu Sun, Sept. 2015 – Sept. 2017, Visiting scholar from Southeast University, China.
39. Prof. Hung-Ta Pai, March 2016 – August. 2016, Visiting professor from National Taipei University, Taiwan.
40. Prof. Yinsheng Liu, March 2016 – March 2017, Visiting professor from Beijing Jiaotong University, China.
41. Prof. Deli Qiao, Aug. 2016, Visiting professor from East China Normal University, China.
42. Prof. Yunlong Cai, Aug. 2016 – Jan. 2017, Visiting professor from Zhejiang University, China.
43. Mr. Hua Shao, Aug. 2016 – Nov. 2016, Visiting scholar from Beijing University of Post and Telecommunications, China.
44. Prof. Youngtao Ma, December 2016 – December 2017, Visiting scholar from Tianjin University, China.
45. Mr. Ziyi Chen, September 2017 – September 2019, Visiting scholar from Jilin University, China.
46. Mr. Peihao Dong, October 2017 – October 2019, Visiting student from Southeast University, China.
47. Prof. Chongtao Guo, December 2017 – December 2018, Visiting scholar from Shenzhen University, China.
48. Prof. Liang Wang, October 2018 – October 2019, Visiting scholar from Shanxi Normal University, China.
49. Mr. Bolei Wang, October 2018 – October 2019, Visiting student from Tsinghua University, China.
50. Mr. Hengtao He, October 2018 – January 2020, Visiting student from Southeast University, China.
51. Mr. Rui Liu, November 2018 – July 2020, Visiting student from Zhejiang University, China.
52. Mr. Mingjing Wang, October 2019 – December 2020, Visiting student from Tsinghua University, China.
53. Mr. Junchao Shi, October 2019 – December 2020, Visiting student from Southeast University, China.

(@ Imperial College London)

54. Mr. Jiabao Gao, September 2021 – March 2023, Visiting student from Zhejiang University, China.
55. Mr. Guangyao Ding, September 2021 – March 2023, Visiting student from Zhejiang University, China.
56. Mr. Hui Zhang, December 2021 – June 2022, visiting student from Beijing Jiaotong University, China.
57. Ms. Tianxin Wang, November 2023 – January 2025, visiting student from Shanghai Jiaotong University, China.
58. Mr. Jiawei Cao, December 2023 – June 2024, visiting student from University of Electronic Science and Technology of China, China.
59. Ms. Shan Sha, December 2023 – December 2024, visiting student from Beijing Jiaotong University, China.
60. Mr. Zhijin Cao, November 2024 – November 2025, visiting student from Southeast University, China.
61. Ms. Yiqun Zhao, December 2025 – March 2026, visiting student from Chinese Academy of Science.
62. Ms. Yuqi Zhu, January 2026 – July 2026, visiting student from University of Electronic Science and Technology of China

E. Other Teaching Activities

- Developed and taught a new graduate course entitled *Spatial-Temporal Processing for Wireless Communications* (ECE8823) in fall 2002: This course introduces current research results in spatial-temporal processing for wireless communication systems to improve performance and increase capacity. It includes receive antenna arrays for diversity and interference suppression, transmit diversity approaches (including linear filter based approaches, space-time block coding, and space-time trellis coding), and MIMO techniques.
- Developed and taught a new graduate course entitled *Fundamental Broadband Communications* (ECE8853) in spring 2011: This course examines the fundamental issues of broadband communications and it covers optimal sequence detection, time- and frequency-domain equalization, OFDM and DMT, MIMO techniques, multi-user systems.
- Reshaping existing undergraduate course *Circuits Analysis* (ECE2040): As Curriculum committee member of the course, worked with other members to revise the curriculum of ECE2040. Helped add experimental elements in the course.

VI. SERVICE

A. Society Officers, Activities, and Membership

- Member of the *Fellow (Evaluation) Committee* of *IEEE Vehicular Technology Society* (2006 - 2016).
- Member of the *Award Committee* of *IEEE Communications Society* (2014 – 2016).
- Member of the *Conference Board* of *IEEE Signal Processing Society* (2015 – 2016).
- *IEEE Fellow Committee Member* (January – December 2017)
- *TCCN Publication Award Committee Chair* of *IEEE Communications Society* (2017-2018)
- *IET Fellow Assessor* (March 2022 -October 2024)
- *Member of Fellowship Panel 10 of Royal Academy of Engineering* since 2025

B. Editorial Board Membership

- Associate Editor for Wireless Communication Theory for *IEEE Transactions on Communications*, April 1998 – August 2006.
- Leading Guest Editor for *IEEE Journal on Selected Areas in Communications: Special Issues on Signal Processing for Wireless Communications I/II*, vol. 16, No. 8, October and No. 9, December 1998.
- Leading Guest Editor for *EURASIP Journal on Applied Signal Processing: Special Issue on Multi-carrier Communications and Signal Processing*, vol. 14, no. 10, August 2004.
- Editorial Board Member of *EURASIP Journal on Applied Signal Processing*, February 2001 –June 2004.
- Leading Guest Editor for Special Issues on *Cognitive Wireless Networks* for *Elsevier Journal of Computer Networks*, vol. 52, issue 4, March 2008.
- Guest Editor for Special Issues on *Cognitive Radio* for the *Proceedings of IEEE*, vol. 97, no. 4, April and no. 5, May 2009. (in best readings at <http://www.comsoc.org/best-readings>)
- Associate Editor for Signal Processing for Communications for *IEEE Transactions on Signal Processing*, April 2009 – April 2011.
- Guest Editor for special issues on *Cognitive Radio* for *IEEE Communications Magazine*, vol. 48, issue 9, September 2010 and vol. 49, issue 3, March 2011.
- Guest Editor for special issue on *Practical Physical Layer Techniques for 4G Systems & Beyond* for *Journal of Communications*, vol. 6, no. 2, July 2011.
- Area Editor of Transmission I for *IEEE Transactions on Wireless Communications*, December 2009 – September 2013.
- Guest Editor for *IEEE Journal on Selected Areas in Communications: Special Issues on Cognitive Radio Networks*, vol. 29, no. 2, February and no. 4, April 2011. (in best readings at <http://www.comsoc.org/best-readings>)

- Leading Guest Editor for *IEEE Journal on Selected Areas in Communications: Special Issues on Energy-Efficiency Wireless Communications*, vol. 29, no. 8, September 2011. (in best readings at <http://www.comsoc.org/best-readings>)
- Member of the Steering Committee of *IEEE ComSoc China Communications* (2012 – 2015).
- Leading Guest Editor for *IEEE Journal on Selected Topics in Signal Processing: Special Issues on Signal Processing for Large-Scale MIMO Communications*, October 2014. (in best readings at <http://www.comsoc.org/best-readings>)
- Guest Editor on feature topic: cognitive radio networks in *IEEE/CIC China Communications*, vol. 10, no. 8, August 2013.
- Steering Committee Member (Jan. 2014 – Dec. 2015) and Chair (Jan. 2016 – Dec. 2017) of *IEEE Transactions on Cognitive Communications and Networks*.
- Leading Guest Editor for special issues on *Full-duplex communications* for *IEEE Communications Magazine*, May 2015.
- Guest Editor on feature topic: 5G ultra-dense networks in *IEEE/CIC China Communications*, February 2016.
- Guest Editor for special issue on *New Waveforms and Multiple Access Methods for 5G Networks* for *IEEE Communications Magazine*, November 2016.
- Guest Editor for *IEEE Wireless Communications Featured Topic on LTE in Unlicensed Spectrum*, December 2016.
- Founding Editor-in-Chief of *IEEE 5G Tech Focus* (September 2016 – March 2020)
- Guest Editor for *IEEE Communications Magazine Featured Topic on Key Technologies for 5G New Radio*, March 2018.
- Steering Committee Member (Jan. 2018 – 2019) of *IEEE Journal on Selected Areas in Communication Series on Network Softwarization & Enablers*.
- Leading Editor of *IEEE ComSoc Best Readings in Machine Learning in Communications*, March 2019.
- Founding Editor-in-Chief of *IEEE JSAC Special Series on ML in Communications and Networking* (March 2020 – February 2022).
- Leading Editor for updating *IEEE ComSoc Best Readings in Machine Learning in Communications*, July 2021.
- Leading Guest Editor for feature topic on *Semantic Communications: Transmission beyond Shannon* for *IEEE Communications Magazine*, December 2023.

C. Organization of Workshops and Conferences

- Treasurer of *IEEE 2002 Communication Theory Workshop (CTW'02)* in Florida.
- Vice-Chair for tutorials of *The 5th International Symposium on Wireless Personal Multimedia Communications (WPMC'02)* at Honolulu, Hawaii.
- Vice-Chair of the TPC of *IEEE 2003 International Conference on Communications (ICC'03)* at Anchorage, Alaska.
- Co-Chair of the TPC of *2007 IEEE Radio and Wireless Conference*.
- Tutorial Chair of *IEEE 2007 Wireless Communications and Networking Conference*.
- Co-Chair of *Signal Processing Symposium at IEEE 2007 Global Telecommunications Conference*.
- Track Chair of Wireless Communications at *IEEE 2007 Military Communications Conference*.
- Technical Program Chair of *2008 International Conference on Communications, Circuits, and Systems (ICCCAS'08)*.
- Technical Program Chair of *2009 International Conference on Communications, Circuits, and Systems (ICCCAS'09)*.
- Tutorial Chair of *IEEE 2010 International Conference on Communications*.
- Technical Program Co-Chair of *2011 IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC'11)*, San Francisco, CA.
- Panel Chair of *IEEE 2013 Global Telecommunications Conference (Globecom'13)*, Atlanta, GA.

- General Chair of *IEEE 2014 Global Conference on Signal and Information Processing* (GlobalSIP'14), Atlanta, GA.
- Technical Program Co-Chair of *IEEE 2016 (Spring) Vehicular Technology Conference* (VTC'16 Spring), Nanjing, China.
- Award Chair of *IEEE 2017 Global Telecommunications Conference* (Globecom'17), Singapore.
- Plenary Sessions Chair of *IEEE 2019 International Conference on Acoustic, Speech, and Signal Processing* (ICASSP'19), Brighton, UK.
- General co-chair of *IEEE 2019 (Fall) Vehicular Technology Conference* (VTC'19 Fall), Hawaii, USA, September 2019.
- General Co-Chair of *2020 IEEE Workshop on Signal Processing Advances in Wireless Communications* (SPAWC'20), Atlanta, USA, May 2020.
- General co-chair of *Workshop on Native-AI Empowered Wireless Networks at IEEE International Symposium on Personal, Indoor and Mobile Radio Communications* (PIMRC'21), Virtual Conference, September 2021.
- General co-chair of *IEEE 2022 (Fall) Vehicular Technology Conference* (VTC'22 Fall), London, UK, September 2022.
- Technical Program Co-Chair of *IEEE International Conference on Machine Learning for Communications and Networking* (ICMLCN'24), Stockholm, Sweden, May 2024.
- General co-chair of *IEEE International Workshop on Machine Learning for Signal Processing* (MLSP) 2024, London, UK, October 2024.
- General Co-Chair of *2025 IEEE Workshop on Signal Processing Advances in Wireless Communications* (SPAWC'25), London, UK, September 2025.