

Yik-Chung Wu
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Brief Biography: Yik-Chung Wu received the B.Eng. (EEE) degree in 1998 and the M.Phil. degree in 2001 from the University of Hong Kong (HKU). He received the Croucher Foundation scholarship in 2002 to study Ph.D. degree at Texas A&M University, College Station, and graduated in 2005. From August 2005 to August 2006, he was with the Thomson Corporate Research, Princeton, NJ, as a Member of Technical Staff. Since September 2006, he has been with HKU, currently as an Associate Professor. He was a visiting scholar at Princeton University, in summers of 2015 and 2017. His research interests are in general area of **signal processing, and communication systems**. He served as an **Editor for IEEE Communications Letters**, and **IEEE Transactions on Communications**. He is currently a **Senior Area Editor for IEEE Transactions on Signal Processing**, an **Associate Editor for IEEE Wireless Communications Letters**, and an **Editor for Journal of Communications and Networks**. He received four best paper awards in international conferences, with the most recent one from **IEEE International Conference on Communications (ICC) 2020**. He was elected the Best Editor of the Year 2023 in IEEE Wireless Communications Letters, and an elected member of IEEE signal processing society SPCOM Technical Committee (2025-2026). He is an **IEEE Distinguished Lecturer (Vehicular Technology Society 2025 class)**, and a senior member of the IEEE.

EDUCATION

Doctor of Philosophy Texas A&M University Thesis: New advances in symbol timing synchronization of single-carrier, multi-carrier and space-time multiple-antenna systems Advisor: Prof. Erchin Serpedin	Sep. 2002-Aug. 2005
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Master of Philosophy The University of Hong Kong Thesis: Demodulation and Symbol Timing Recovery in Software Radio Advisor: Prof. Tung-Sang Ng	Sep. 1998-Oct. 2000
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Bachelor of Electrical and Electronic Engineering The University of Hong Kong Final year project: RF and baseband hardware implementation of a spread spectrum transmitter Advisor: Prof. Jiangzhou Wang	Sep. 1995-Jul. 1998
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WORKING EXPERIENCES

Associate Professor (Oct. 2012 –)
Assistant Professor (Sep. 2006 – Sep 2012)
Department of EEE, The University of Hong Kong

Member of Technical Staff (Aug. 2005- Aug. 2006)
Thomson Corporate Research, Princeton, NJ, USA.

RESEARCH INTERESTS

- Distributed Algorithms for Signal Processing and Communications
- First-order Optimization Algorithms in Communications
- Synchronization and Channel Estimation in Wireless Systems
- Bayesian Methods for Statistical Inference and Tensor Data Analytic

AWARDS AND HONORS

- *IEEE Distinguished Lecturer* (Vehicular Technology Society 2025 class)
- *Elected member of IEEE signal processing society SPCOM Technical Committee* (2025-2026)
- *HKU Faculty of Engineering Knowledge Exchange Award 2023*
- *HKU Faculty of Engineering Best Teacher Award 2022-23*
- *Best Editor of the Year 2023* in IEEE Wireless Communications Letters
- *IEEE Hong Kong Section 50th Anniversary Award* (2022) for long-term leadership to the IEEE Hong Kong Section activities
- *Top 1% Scholars* (ranked by Clarivate Analytics), 2015, 2016, 2017, 2018, 2019, 2020, 2021
- *Best Paper Award* from IEEE Communications Society Signal Processing for Communications and Computing (SPCC) Technical Committee, 2020
- *Best Paper Award in IEEE International Conference on Communications (ICC)* 2020
- *Exemplary reviewer of IEEE Wireless Communications Letters* 2017
- *Biography included in Marquis Who's Who in the World* 2016
- *HKU Outstanding Young Researcher Award* 2012-2013
- *HKU Research Output Prize* 2011-2012
- *International Conference on Wireless Communications and Signal Processing (WCSP) Best Paper award* 2012
- *HKU EEE Department Research Output Prize* 2008
- *ISCIT Best Conference Paper Award*, 2007
- *Croucher Foundation Scholarship*, Hong Kong, 2002-2005 (This is a three-year full scholarship for oversea study, covering tuition fees and living expenses)
- *CCCT'04 conference Best Paper Award*, 2004
- *S. Y. King Fellowships*, The University of Hong Kong, 2001
- *Postgraduate Studentship*, The University of Hong Kong, 1998-2000

PROFESSIONAL ACTIVITIES

Senior Area Editor

- IEEE Transactions on Signal Processing (2023 - present)

Associate Editor

- IEEE Wireless Communications Letters (2022 -)

- Journal of Communications and Networks (2012 –)
- IEEE Transactions on Signal Processing (2021 - 2023)
- IEEE Transactions on Communications (2012 – 2018)
- IEEE Communications Letters (2008 – 2013)

International Conference/Symposium chair

- Signal Processing for Communications Symposium at IEEE Global Communications Conference (GLOBECOM) 2025
- The 3rd International Conference on Electrical, Electronics and Information Engineering 2024 (EEIE 2024)
- The 4th International Conference on Signal Processing and Communication Technology 2024 (SPCT 2024)
- Signal Processing for Communications Symposium at IEEE International Conference on Communications (ICC) 2023
- Communications and Signal Processing track at IEEE Region 10 conference 2022
- Track on Fundamentals and PHY at IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2015
- The Signal Processing for Communications track at the 7th International Conference on Communications and Networking in China (CHINACOM) 2012

Special Session Organization in Conferences for

- Organizer of special session “Bayesian inference and deep learning” in The Fourteenth IEEE Sensor Array and Multichannel Signal Processing Workshop 2026.
- Organizer of special session “Structured Matrix/Tensor decompositions: Models, Applications and Fast Algorithms” in The 11th IEEE Sensor Array and Multi-channel Signal Processing Workshop 2020.
- Organizer of special session on “Signal Processing for Communications” in the 14th International Conference on Communication Systems (ICCS) 2014, Macau, China.

Founding member of IEEE Signal Processing Society Scholarship Committee (2023 -)

Member of newsletter editorial board of IEEE Communication Society
Multimedia Communication Technical Committee (MMTC) (2012 - 2014)

Session Chair at conferences

- IEEE Global Communication Conference (Globecom) 2025.
- IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP) 2024.
- IEEE International Conference on Communications (ICC) 2023.
- IEEE Global Communication Conference (Globecom) 2017.
- IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2015.
- International Conference on Digital Signal Processing 2014.
- The 16th International Conference on Digital Signal Processing (DSP 2009) 2009.
- IEEE Asia Pacific Conference on Circuits and Systems (APCCAS) 2008.

- SPIE Second International Symposium on Fluctuations and Noise 2004.

Member of Technical Program Committee for

- IEEE Vehicular Technology Conference (VTC) Fall 2005 (Dallas, TX, USA), Spring 2011 (Budapest, Hungary), Fall 2011 (San Francisco, CA, USA), Spring 2012 (Yokohama, Japan), Spring 2013 (Dresden, Germany), Fall 2014 (Vancouver, Canada), Fall 2015 (Boston, MA, USA), Spring 2016 (Nanjing, China), Fall 2018 (Chicago, USA), Spring 2019 (Kuala Lumpur), Spring 2020 (Virtual), Fall 2020 (Virtual), Spring 2021 (Virtual)
- IEEE Global Communication Conference (Globecom), 2006 (San Francisco, CA, USA), 2008 (New Orleans, LA, USA), 2011 (Houston, TX, USA), 2013 (Atlanta, GA, USA), 2014 (Austin, TX, USA), 2015 (San Diego, CA), 2016 (Washington, DC, USA), 2017 (Singapore), 2018 (Abu Dhabi, UAE), 2019 (Hawaii, USA), 2020 (Taipei, Taiwan), 2021 (Madrid, Spain), 2022 (Rio de Janeiro, Brazil), 2023 (Kuala Lumpur, Malaysia), 2024 (Cape Town, South Africa), 2025 (Taipei, Taiwan)
- IEEE International Conference on Communications (ICC), 2007 (Glasgow, Scotland), 2008 (Beijing, China), 2011 (Kyoto, Japan), 2012 (Ottawa, Canada), 2013 (Budapest, Hungary), 2014 (Sydney, Australia), 2015 (London, UK), 2016 (Kuala Lumpur, Malaysia), 2018 (Kansas City, MO, USA), 2019 (Shanghai, China), 2020 (Virtual), 2021 (Montreal, Canada), 2022 (Seoul, Korea), 2023 (Rome, Italy), 2024 (Denver, CO, USA), 2025 (Montreal, Canada), 2026 (Glasgow, UK)
- IEEE Wireless Communications and Networking Conference (WCNC) 2013 (Shanghai, China), 2014 (Istanbul, Turkey), 2015 (New Orleans, LA, USA), 2016 (Doha, Qatar), 2019 (Marrakech, Morocco), 2020 (Virtual), 2021 (Nanjing, China), 2022 (Austin, USA), 2023 (Glasgow, Scotland, UK), 2024 (Dubai, United Arab Emirates), 2026 (Kuala Lumpur, Malaysia)
- IEEE International Conference on Communication Systems (ICCS), 2008 (Guangzhou, China), 2010 (Singapore), 2012 (Singapore), 2016 (Shenzhen, China), 2018 (Chengdu, China)
- IEEE International Symposium on Circuits and Systems (ISCAS) 2014 (Melbourne, Australia), 2016 (Montreal, Canada), 2019 (Sapporo, Japan), 2021 (Daegu, Korea)
- International Conference on Communications in China (ICCC) 2013, (Xian), 2014 (Shanghai), 2015 (Shenzhen), 2018 (Beijing), 2021 (Xiamen), 2022 (Chengdu), 2023 (Dalian), 2024 (Hangzhou), 2025 (Shanghai)
- The International Symposium on Wireless Personal Multimedia Communications (WPMC), 2014 (Sydney, Australia), 2016 (Shenzhen, China), 2017 (Bali, Indonesia), 2019 (Lisbon, Portugal)
- International Conference on Wireless Communications and Signal Processing (WCSP) 2012 (Huangshan, China), 2017 (Nanjing, China), 2018 (Hangzhou, China), 2019 (Xian, China), 2023 (Hangzhou, China), 2024 (Hefei, China)
- International Conference on Telecommunications (ICT) 2010 (Doha, Qatar), 2015 (Sydney, Australia), 2016 (Thessaloniki, Greece), 2017 (Limassol, Cyprus), 2019 (Hanoi, Vietnam), 2021 (London, UK)
- International Wireless Communications & Mobile Computing Conference (IWCMC) 2012 (Limassol, Cyprus), 2013 (Cagliari, Sardinia - Italy), 2014 (Nicosia, Cyprus), 2019 (Tangier, Morocco), 2021 (Virtual), 2022 (Dubrovnik, Croatia), 2023 (Marrakesh, Morocco), 2024 (Cyprus)

- IEEE International Conference on Wireless for Space and Extreme Environments (WISEE) 2018 (Huntsville, AL), 2019 (Ottawa, Canada), 2020 (Venice, Italy), 2021 (Virtual), 2022 (Winnipeg, Canada), 2024 (Daytona, USA)
- International Conference on Artificial Intelligence in Information and Communication (ICAIIIC) 2021 (Jeju, Korea), 2022 (Bali, Indonesia), 2023 (Bali, Indonesia), 2024 (Osaka, Japan), 2025 (Fukuoka, Japan)
- IEEE Symposium on Computers and Communications (ISCC), 2017 (Crete, Greece), 2018 (Natal, Brazil), 2019 (Barcelona, Spain), 2021 (Athens, Greece), 2022 (Rhodes Island, Greece), 2023 (Tunis Tunisia), 2024 (Paris, France), 2025 (Bologna Italy)
- International Symposium on Communications and Information Technologies (ISCIT) 2007 (Sydney, Australia), 2011 (Hangzhou, China), 2012 (Gold Coast, Australia)
- International Symposium on Wireless Communication Systems (ISWCS), 2015 (Brussels, Belgium), 2016 (Poznań, Poland), 2018 (Lisbon, Portugal)
- The Asia-Pacific Conference on Communications (APCC), 2009 (Shanghai, China), 2016 (Yogyakarta, Indonesia), 2019 (Ho Chi Minh city, Vietnam), 2022 (Jeju, Korea)
- IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC) 2017 (Hokkaido, Japan), 2020 (Atlanta, USA), 2022 (Oulu, Finland)
- International Conference on Ubiquitous and Future Networks (ICUFN) 2019 (Split, Croatia), 2020 (Porto, Portugal), 2021 (Virtual), 2022 (Paris, France), 2023 (Paris, France), 2024 (Budapest, Hungary)
- The IEEE Statistical Signal Processing Workshop 2018 (Freiburg, Germany), 2021 (Rio de Janeiro, Brazil), 2023 (Hanoi, Vietnam), 2025 (Edinburgh, Scotland)
- IEEE Region 10 Conference (TENCON) 2012 (Cebu, Philippines), TENCON-Spring 2013 (Sydney, Australia), 2017 (Penang, Malaysia), 2025 (Kota Kinabalu, Malaysia)
- International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob), 2022 (Thessaloniki, Greece), 2024 (Paris, France), 2025 (Marrakech, Morocco)
- IEEE Radio and Wireless Symposium, 2009 (San Diego, CA, USA), 2010 (New Orleans, LA, USA), 2011 (Phoenix, AZ, USA)
- IEEE Radio Wireless Week 2012 (Santa Clara, CA, USA) 2013 (Austin, TX, USA), 2016 (Austin, TX, USA)
- European Wireless Conference (EW) 2013 (Guildford, United Kingdom), 2014 (Barcelona, Spain)
- International Conference on Communications and Networking in China (CHINACOM), 2013 (Guilin, China), 2014 (Maoming, China)
- International Conference on Connected Vehicles & Expo (ICCVE), 2014 (Vienna, Austria 2014), 2015 (Shenzhen, China)
- International Congress on Image and Signal Processing (CISP) and International Conference on BioMedical Engineering and Informatics (BMEI), 2013 (Hangzhou, China), 2017 (Shanghai, China)
- IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2018 (Bologna, Italy), 2020 (London, UK), 2024 (Valencia, Spain), 2025 (Istanbul, Turkey)
- The 3rd International Conference on Recent Advances in Signal Processing, Telecommunications & Computing (SigTelCom 2019), HaNoi, Vietnam, 21 -22 Mar 2019.

- IEEE International Conference on Computer Communications and Networks (ICCCN) 2008, Virgin Islands, USA, Aug 2008
- IEEE International Conference on Wireless Communications, Networking and Information Security (WCNIS2010), Beijing, China, June 2010
- The 1st International Conference on Wireless Communications Frontiers (WCF 2010), Chongqing, China, 12-14 July 2010
- The Seventh International Symposium on Wireless Communication Systems, York, The University of York, United Kingdom, Sep. 2010
- 3rd International Conference on Communications and Mobile Computing (CMC 2011), Qingdao, China, April 18-20, 2011
- International Conference on Digital Signal Processing, Hong Kong, 20-23 Aug, 2014
- IEEE International Conference on Communication, Networks and Satellite (Comnetsat) 2018, Indonesia, 15-17 Nov 2018.
- International Conference on Computing, Networking and Communications (ICNC 2020), Hawaii, USA, 17-20 Feb, 2020.
- The 13th International Conference on ICT Convergence, Jeju Island, Korea, Oct 2022.
- IEEE International conference on industry 4.0, artificial intelligence, and communication technology (IAITC), 2021, 2022
- IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM), Trondheim, Norway, Jun 2022.
- The 36th International Conference on Information Networking (ICOIN), Jeju, South Korea, Jan, 2022

Keynote and Invited Presentations:

- **“Going beyond generic deep learning for wireless communications”** 1) Sun Yat-Sen University, China, Nov 2023; 2) International conference for artificial intelligence developers, Dec 2024 (**keynote**); 3) South China University of Technology, Apr 2025; 4) IEEE International Conference on Communications in China (ICCC) 2025 Workshop in Key Technologies of Low-latency and high-security Internet of Things, Aug 2025 (**keynote**); 5) Tongji University, Aug 2025; 6) Shanghai Jiaotong University, Aug 2025; 7) The 8th International Symposium on Computational and Applied Mathematics, Oct 2025 (**keynote**); 8) Xiamen University, Oct 2025; 9) Wireless Innovation Next-generation online workshop, Nov 2025; 10) The 4th International Conference on Electrical, Electronic and Information Engineering, Nov 2025 (**keynote**); 11) Chongqing University of Post and Telecommunications, Apr 2026; 12) IEEE International Conference on Communications in China (ICCC) 2026 (**keynote**).
- **“Bayesian automatic model order selection in wireless communications”** 1) Tianyuan Mathematics Research Center, Sep 2024; 2) University of Electronic Science and Technology, Mar 2025; 3) Southwest Jiaotong University, Mar 2025; 4) Sichuan University Department of Mathematics, Mar 2025; 5) Chongqing University of Post and Telecommunications, Mar 2025; 6) Harbin Engineering University, Jul 2025; 7) University of Macau, Jul 2025; 8) Fudan University, Aug 2025.
- **“Parameter tuning-free matrix and tensor decompositions”**

➤ **Keynotes at International Conferences:**

1) The 7th Zhejiang University Graduate International Workshop on Intelligent Signal Processing, Oct 2022; 2) The 8th International Conference on Intelligent Computing and Signal Processing (ICSP 2023), Apr 2023; 3) The 2nd International Conference on Intelligent Computing and Next Generation Networks (ICNGN 2023), Nov 2023; 4) The 7th International Conference on Statistics, Mathematical Modelling and Analysis, May 2024; 5) The 6th International Conference on Image, Video Processing and Artificial Intelligence, Jul 2024; 6) The 3rd International Conference on Electrical, Electronics and Information Engineering, Nov 2024; 7) The 7th International Symposium on Computational and Applied Mathematics, Nov 2024; 8) The 4th International Conference on Signal Processing and Communication Technology 2024, Dec 2024; 9) The 7th International Conference on Machine Learning and Intelligent Systems (MLIS 2025), Nov 2025; 10) The 9th Int'l Conference on Statistics and Data Science, May 2026.

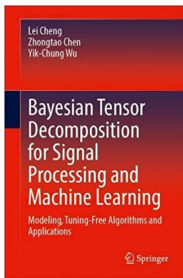
➤ **at various universities**

- 1) Beijing Institute of Technology, China, Mar 2024; 2) Tsinghua University, China, Mar 2024; 3) Academy of Mathematics and Systems Science of Chinese Academy of Science, Mar 2024
- **“Inference in probabilistic models with applications to communications and signal processing”**, 1) National Chiao Tung University, Taiwan, Apr 2017; 2) Hong Kong Applied Science and Technology Research Institute (ASTRI), Apr 2017; 3) Princeton University, Jul 2017; 4) South China University of Technology, China, Oct 2017; 5) Sun Yat-Sen University, China, Oct 2017; 6) National Taiwan University, Taipei, Taiwan, Dec 2017; 7) University of Electronic Science and Technology, Chengdu, China, Jan 2018; 8) Southern University of Science and Technology, China, July 2018; 9) Academia Sinica, Taipei, Taiwan, July 2018; 10) National Tsing-Hua University, Taiwan, Aug 2018; 11) University of Macau, Oct 2018.
 - **“Clock Synchronization in Wireless Sensor Network: From Traditional Estimation Theory to Distributed Signal Processing”** 1) University of Macau, Apr 2014; 2) National University of Singapore, July 2014; 3) Beijing Institute of Technology, Dec 2014; 4) Princeton University, NJ, USA, Aug 2015; 5) Nanyang Technological University (NTU), Singapore, Sep 2015; 6) Zhejiang University, Hangzhou, China, Mar 2016; 7) Tongji University, Shanghai, China, Mar 2016; 8) Academia Sinica, Taipei, Taiwan, Apr 2016; 9) National Taiwan University, Taipei, Taiwan, Apr 2016; 10) Sun Yat-Sen University, Guangzhou, China, June 2016; 11) Xidian University, Xian, China, Jul 2016; 12) Xian Xiaotong University, Xian, China, Jul 2016; 13) Centre Tecnològic de Telecomunicacions de Catalunya, Barcelona, Spain, Jul 2016; 14) National Tsing-Hua University, Taiwan, Dec 2016; 15) Peking University Shenzhen Campus, Shenzhen, China, Mar 2017; 16) National Chiao Tung University, Taiwan, Dec 2017.
 - **“New advances on joint CFO and channel estimation in single-user and multi-user OFDM systems”** 1) Thomson Corporate Research, Princeton, NJ, Dec 2007; 2) NEC Laboratories America, Princeton, NJ, Dec 2007; 3) Qualcomm, Bridgewater, NJ, Dec 2007; 4) IBM Research Lab, Beijing, May 2008; 5) Thomson Corporate Research, Beijing, May 2008; 6) Osaka Prefecture University, Japan, Nov 2008; 6) University of Science and Technology of China, Hefei, Nov 2009; 7) Sun Yat-sen University, Guangzhou, China, Nov 2009; 8) Guangdong University of Technology, Guangzhou, China, May 2010; 9) XIDIAN University, Xi'an, China, Jul 2010; 10) Beijing Institute of Technology, Beijing, Dec 2010.
 - **“New Advances in symbol timing synchronization of single-carrier, multi-carrier and space-time multiple-antenna systems”** 1) Thomson Corporate Research, Princeton, NJ, June 2005; 2) Anritsu company, Morgan Hill, CA, June 2005; 3) The University of Hong Kong, Aug. 2005.

- **“Digital receiver design: Theories and Implementations”** Imperial College, London, UK, July 2005.
- **“Symbol timing estimation in MIMO correlated flat-fading channels”** The University of Hong Kong, Hong Kong, Jan. 2005.
- **“Data-aided maximum likelihood symbol timing estimation in MIMO correlated fading channels”** Texas Systems Day 2004, University of Houston, Nov. 2004.
- **“Timing synchronization of space-time multi-antenna systems”** Texas Instruments Conference, Texas Instruments, Dallas, Feb. 2004.
- **“Symbol Timing Recovery for Generalized Minimum Shift Keying Modulations in Software Radio Receiver”** Department of Signals, Sensors and Systems, Royal Institute of Technology, Stockholm, Sweden, Apr. 2002.

PUBLICATIONS

Book:



Lei Cheng, Zhongtao Chen, and **Yik-Chung Wu**, *Bayesian Tensor Decomposition for Signal Processing and Machine Learning: Modeling, Tuning-Free Algorithms, and Applications*, Springer, 2023.

Book chapter contributions:

1. Shaodan Ma, Lanlan He, **Yik-Chung Wu**, and Tung-Sang Ng, “Chapter 7: Multiple Frequency Offsets Compensation in OFDMA Femtocells,” in *Femtocell Communications and Technologies: Business Opportunities and Deployment Challenges*, edited by Rashid A. Saeed, Bharat S. Chaudhari and Rania A. Mokhtar, IGI Global, 2012.
2. Yi Zhou, **Yik-Chung Wu**, Erchin Serpedin and Kalid Qaraqe, “Chapter 1: The Effects of Spatial Diversity on the Synchronization of MIMO-OFDM Systems,” in *Orthogonal Frequency Division Multiplexing with Diversity for Future Wireless Systems*, edited by K. N. Le, Bentham e-books, Bentham Science Publishers Ltd, 2012
3. **Yik-Chung Wu**, "Chapter 10: Fundamentals of Estimation Theory," in *Mathematical Foundations for Signal Processing, Communications, and Networking*, edited by Erchin Serpedin, Thomas Chen and Dinesh Rajan, CRC Press, 2011.
4. Jianwu Chen, **Yik-Chung Wu**, Tung-Sang Ng and Erchin Serpedin, “Chapter 12: Training sequence design in multi-user OFDM systems,” in *Orthogonal Frequency Division Multiple Access Fundamentals and Applications*, edited by Tao Jiang, Liangyang Song and Yan Zhang, Auerbach Publications, CRC Press, Taylor&Francis Group, 2010.
5. **Yik-Chung Wu**, Jianwu Chen, Tung-Sang Ng and Erchin Serpedin, “Chapter 15: Multi-user frequency offsets estimation in OFDMA uplink systems,” in *Orthogonal Frequency Division Multiple Access Fundamentals and Applications*, edited by Tao Jiang, Liangyang Song and Yan Zhang, Auerbach Publications, CRC Press, Taylor&Francis Group, 2010.

6. Kyoung-Lae Noh, **Yik-Chung Wu**, Khalid Qaraqe and Erchin Serpedin, "Chapter 13: Time Synchronization for Wireless Sensor Networks," in *Adaptive Signal Processing for Wireless Communications*, edited by Mohamed Ibnkahla, CRC Press, 2008.
7. **Yik-Chung Wu**, Tung-Sang Ng and Kun-Wah Yip, "Chapter 7 -- Software-Radio: A Prospective Technology for the Future Broadband Communication Systems," in *Advances in 3G Enhanced Technologies for Wireless Communications*, edited by J. Wang and T. S. Ng, Artech House, 2002. (This book has been translated into Chinese language)

Published/accepted journal papers (143):

1. Wei Zuo, Zeyi Ren, Chengyang Li, Yikun Wang, Mingle Zhao, Shuai Wang, Wei Sui, Fei Gao, **Yik-Chung Wu**, and Chengzhong Xu, "DPNet: Doppler LiDAR Motion Planning for Highly-Dynamic Environments," accepted in *IEEE Robotics and Automation Letters (RA-L)*.
2. Hancheng Zhu, Zongze Li, and **Yik-Chung Wu**, "Unified framework for outage-constrained rate maximization in secure ISAC under various sensing metrics," *IEEE Journal on Selected Areas in Communications (JSAC)*, vol. 44, pp. 3812-3827, 2026, doi: 10.1109/JSAC.2026.3670082.
3. Hancheng Zhu, Zongze Li, **Yik-Chung Wu**, and H. Vincent Poor, "Countering Collaborative Eavesdroppers under Imperfect CSI: Outage Probability Constraint Transformation and Zeroth-Order Optimization," *IEEE Trans. on Signal Processing*, vol. 74, pp. 863-877, 2026, doi: 10.1109/TSP.2026.3661988.
4. Zhongtao Chen, Lei Cheng, **Yik-Chung Wu**, and H. Vincent Poor, "Rank-Revealing Bayesian Block-Term Tensor Completion with Graph Information," *IEEE Trans. on Signal Processing*, vol. 74, pp. 654-669, 2026, doi: 10.1109/TSP.2026.3656119.
5. Yichen Jin, Qingfeng Lin, Yang Li, Hancheng Zhu, Bingyang Cheng, **Yik-Chung Wu**, and Rui Zhang, "A General Optimization Framework for Tackling Distance Constraints in Movable Antenna-Aided Systems," *IEEE Trans. on Wireless Communications*, vol. 25, pp. 10869-10885, 2026, doi: 10.1109/TWC.2026.3652342
6. Hao Zhang, Qingfeng Lin, Yang Li, and **Yik-Chung Wu**, "AMP-based Joint Activity Detection and Channel Estimation in IRS-aided Grant-free Access with Accurate Channel and Sparsity Modeling," *IEEE Trans. on Communications*, vol. 74, pp. 2482-2497, 2026, doi: 10.1109/TCOMM.2025.3647746.
7. Siyuan Li, Shikai Fang, Lei Cheng, Feng Yin, **Yik-Chung Wu**, Peter Gerstoft, and Sergios Theodoridis, "When Bayesian Tensor Completion Meets Multioutput Gaussian Processes: Functional Universality and Rank Learning," *IEEE Trans. on Signal Processing*, vol. 73, pp. 5319-5335, 2025, doi: 10.1109/TSP.2025.3639229.
8. Yang Leng, Qingfeng Lin, Long-Yin Yung, Jingreng Lei, Yang Li, and **Yik-Chung Wu**, "Unveiling the Power of Complex-Valued Transformers in Wireless Communications," *IEEE Transactions on Communications*, vol. 74, pp. 612-627, 2026, doi: 10.1109/TCOMM.2025.3628747
9. Le Xu, Lei Cheng, Ngai Wong, and **Yik-Chung Wu**, "To Fold or not to Fold: Graph Regularized Tensor Train for Visual Data Completion," *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. 48, no. 2, pp. 1437-1455, Feb. 2026, doi: 10.1109/TPAMI.2025.3615445
10. Wei-Bin Kou, Qingfeng Lin, Ming Tang, Sheng Xu, Rongguang Ye, Yang Leng, Shuai Wang, Guofa Li, Zhenyu Chen, Guangxu Zhu, and **Yik-Chung Wu**, "pFedLVM: A Large

- Vision Model (LVM)-Driven and Latent Feature-Based Personalized Federated Learning Framework in Autonomous Driving," *IEEE Trans. on Intelligent Transportation Systems*, vol. 26, no. 10, pp. 15915 - 15931, Oct 2025. Doi: 10.1109/TITS.2025.3581939
11. Yizhen Jia, **Yik-Chung Wu**, Zhongtao Chen, Bingyang Cheng, Wei Ge, Xiao Han, and Jingwei Yin, "Channel estimation under short pilot length in deep-sea underwater acoustic communications," *J. Acoust. Soc. Am.* 1 October 2025; 158 (4): 2813-2828. <https://doi.org/10.1121/10.0039546>
 12. Bokai Xu, Jiayi Zhang, Zhongtao Chen, Bingyang Cheng, Ziheng Liu, **Yik-Chung Wu**, and Bo Ai, "Channel Estimation for Rydberg Atomic Receivers," *IEEE Wireless Communications Letters*, vol. 14, no. 9, pp. 2957-2961, Sept. 2025, doi: 10.1109/LWC.2025.3584040
 13. Zeyi Ren, Qingfeng Lin, Jingreng Lei, Yang Li, and **Yik-Chung Wu**, "Mixture of Experts-augmented Deep Unfolding for Activity Detection in IRS-aided Systems," *IEEE Wireless Communications Letters*, vol. 14, no. 9, pp. 2912-2916, Sept. 2025, doi: 10.1109/LWC.2025.3582828
 14. Zhenrong Liu, Yang Li, **Yik-Chung Wu**, and Yi Gong, "Learning to Optimize Resource Allocation in Dynamic Wireless Environments: Embracing the New While Engaging the Old," *IEEE Trans. on Wireless Communications*, vol. 24. no. 9, pp. 7346-7359, Sep. 2025, doi: 10.1109/TWC.2025.3560116
 15. Hao Zhang, Yang Li, Qingfeng Lin, **Yik-Chung Wu**, and H. Vincent Poor, "Harnessing Common Sparsity for Enhancing AMP-based Activity Detection and Channel Estimation," *IEEE Trans. on Signal Processing*, vol. 73, pp. 3220-3236, 2025, doi: 10.1109/TSP.2025.3585424
 16. Panqi Chen, Siyuan Li, Lei Cheng, Xiao Fu, **Yik-Chung Wu**, and Sergios Theodoridis, "FieldFormer: Self-supervised Reconstruction of Physical Fields via Tensor Attention Prior," *IEEE Trans. on Signal Processing*, vol. 73, pp. 2704-2718, 2025.
 17. Wei-Bin Kou, Qingfeng Lin, Ming Tang, Rongguang Ye, Shuai Wang, Guangxu Zhu, **Yik-Chung Wu**, "Fast-Convergent and Communication-Alleviated Heterogeneous Hierarchical Federated Learning in Autonomous Driving," *IEEE Transactions on Intelligent Transportation Systems*, vol. 26. no. 7, pp. 10496-10511, Jul. 2025. Doi: 10.1109/TITS.2025.3543235
 18. Bokai Xu, Jiayi Zhang, Qingfeng Lin, Huahua Xiao, **Yik-Chung Wu**, and Bo Ai, "Deep Unfolding Beamforming and Power Control Designs for Multi-Port Matching Networks," *IEEE Trans. on Wireless Communications*, vol. 24. no. 2, pp. 1401-1414, Feb. 2025. Doi: 10.1109/TWC.2024.3509276
 19. Hengyan Liu, Weibin Kou, **Yik-Chung Wu**, Pui Hing Chau, Thomas Wai Hung Chung, Daniel Yee Tak Fong, "Predicting Childhood and Adolescence Hypertension: Analysis of Predictors Using Machine Learning," *Pediatrics*. 2025 Feb 4:e2024066675. doi: 10.1542/peds.2024-066675
 20. Xueke Tong, Hancheng Zhu, Lei Cheng, and **Yik-Chung Wu**, "Revisiting Trace Norm Minimization for Tensor Tucker Completion: A Direct Multilinear Rank Learning Approach," *Pattern Recognition*, Volume 158, Feb 2025.
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2. Chen Zhang, Jianghui Wang, Bingyang Cheng, Zhongtao Chen, Wendong Xu, Cong Wang, Marco Canini, Francesco Orabona, **Yik-Chung Wu**, and Ngai Wong, "Nonparametric Teaching of Attention Learners," accepted in *The International Conference on Learning Representations (ICLR)* 2026 (**acceptance rate: 28% out of 19000 submissions**)
3. Yingxian Chen, Jiahui Liu, Ruidi Fan, Shizhen Zhao, Wilton W. T. Fok, Xiaojuan Qi, and **Yik-Chung Wu**, "Aligning Effective Tokens with Video Anomaly in Large Language Models," accepted in *International Conference on Computer Vision (ICCV)* 2025. (**acceptance rate: 24% out of 11239 submissions**)
4. Chen Zhang, Weixin Bu, Zeyi Ren, Zhengwu Liu, **Yik-Chung Wu**, and Ngai Wong "Nonparametric Teaching for Graph Property Learners," accepted in the *International Conference on Machine Learning (ICML)* 2025. (**Selected as "spotlight posters" -- representing the top 2.6% of 12107 submissions, and are the submissions most highly-recommended by the program committee**)
5. Chen Zhang, Steven Tin Sui Luo, Jason Chun Lok Li, **Yik-Chung Wu**, and Ngai Wong, "Nonparametric Teaching of Implicit Neural Representations," accepted in *The Forty-first International Conference on Machine Learning (ICML)* 2024. (**acceptance rate: 27.5%**)
6. Yinxian Chen, Zhengzhe Liu, Baoheng Zhang, Wilton Fok, Xiaojuan Qi, and **Yik-Chung Wu**, "MGFN: Magnitude-Contrastive Glance-and-Focus Network for Weakly-Supervised Video Anomaly Detection," *Proceedings of the Thirty-Seventh AAAI Conference on Artificial Intelligence*, 2023 (**Oral presentation, overall acceptance rate: 19.6%**). The results of this paper also **won two grand prizes and a gold medal at the 48th International Exhibition of Inventions of Geneva 2023**.
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3. Wei Zuo, Chengyang Li, Yikun Wang, Bingyang Cheng, Zeyi Ren, Shuai Wang, Derrick Wing Kwan Ng, **Yik-Chung Wu**, "HPTune: Hierarchical Proactive Tuning for Collision-Free Model Predictive Control," accepted in *IEEE ICASSP* 2026.
4. Yikun Wang, Yang Li, Zeyi Ren, Jingren Lei, **Yik-Chung Wu**, and Rui Zhang, "Learning to Jointly Optimize Antenna Positioning and Beamforming for Movable Antenna-Aided Systems," accepted in *IEEE International Conference on Communications (ICC)* 2026.
5. Yichen Jin, Zongze Li, Zeyi Ren, Qingfeng Lin, and **Yik-Chung Wu**, "Balancing Latency and Model Accuracy for Fluid Antenna-Assisted LM-Embedded MIMO Network," in *Proceedings of the IEEE Globecom* 2025.
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