

Full Curriculum Vitae (Feb. 2017)

Name: Francis Chung Ming LAU 劉重明
 Current Post: Professor and Associate Head
 Department of Electronic and Information Engineering
 The Hong Kong Polytechnic University

Summary of Qualifications and Experience

Academic achievements:	B.Eng.(First Class Honours) degree (1989) and PhD degree (1993) in Electrical and Electronic Engineering, King's College London, University of London
Professional qualifications:	Chartered Electrical Engineer 1999 Fellow of The Institution of Engineering and Technology (IET), 2013 Senior Member of the Institute of Electrical and Electronics Engineers (IEEE), 2003
Academic experience:	Joined the Department of Electronic Engineering, Hong Kong Polytechnic in 9/1993 Associate Professor 4/02 – 10/05 Associate Professor and Associate Head 10/05 – 06/10 Professor and Associate Head since 07/10; Supervised 28 postgraduate students; Taught undergraduate communication engineering, communication systems, data communications, mobile communications, Master's channel coding, satellite communications, spread-spectrum communications.
Publications:	Three monographs; four book chapters; 270+ refereed papers published
Patents:	Four US patents granted (one licensed) and one US patent filed, two Chinese patents granted and two Chinese patents filed
Scholarly activities:	Associate Editor, <i>IEEE Transactions on Circuits and Systems Part II</i> (since 2016) Guest Associate Editor, <i>International Journal of Bifurcations and Chaos</i> (since 2010) Associate Editor, <i>IEEE Circuits and Systems Magazine</i> (2012-2015), <i>IEEE Transactions on Circuits and Systems Part I</i> (2006-2007), <i>IEEE Transactions on Circuits and Systems Part II</i> (2004-2005), <i>IEICE Transactions</i> (Special Section on Recent Progress in Nonlinear Theory and Its Applications 2011), <i>Dynamics of Continuous, Discrete and Impulsive Systems, Series B</i> (2004-2007) Co-guest Editor, <i>Circuits, Systems and Signal Processing</i> (2004-2005) General co-chair, International Symposium on Turbo Codes and Iterative Information Processing, 2018 Technical Program Co-Chair, International Symposium on

Nonlinear Theory and its Applications, 2016
 Organizing Committee, Local Arrangement, IEEE
 International Symposium on Information Theory, 2015
 Technical program committee member/session
 chair/special session organizer/special session
 chair/reviewer of *IEEE Transactions*, international
 journals and international conferences, Hong Kong
 Research Grants Council Earmarked Grant Proposals

Prizes and Awards

<u>Name of award</u>	<u>Awarded by</u>	<u>Subject/area</u>	<u>Year</u>
Third Place in FPGA Trax Design Competition	International Conference on Field Programmable Technology	FPGA	2015
Outstanding Paper Award	International Conference on Advanced Communication Technology	ICT	2012 and 2013
Best Paper Award	International Conference on Advanced Technologies for Communications	Coding	2011 and 2015
Technology Transfer Award	The Hong Kong Polytechnic University	Technology Transfer Activities	2011
Best Paper Award	International Conference on Communications, Circuits and Systems	Sensor Networks	2008
Merit Award (Individual), Faculty Award	Faculty of Engineering, Hong Kong Polytechnic University	Research and Scholarly Activities	2007

Major Professional Activities

<u>Year</u>	<u>Activity/ Title/ Organization/etc.</u>	<u>Capacity</u>
<i>Editorship</i>		
2016-2017	Special Section on Communication Sciences and Engineering, Nonlinear Theory and Its Applications (NOLTA), IEICE	Guest Associate Editor
2016-now	IEEE Transactions on Circuits and Systems Part II	Associate Editor
2010-now	International Journal of Bifurcations and Chaos	Guest Associate Editor
2012-2015	IEEE Circuits and Systems Magazine	Associate Editor
2006-2007	IEEE Transactions on Circuits and Systems Part I	Associate Editor
2004-2005	IEEE Transactions on Circuits and Systems Part II	Associate Editor
2013	IEICE Transactions (Special Section on Communications and Networks from Scientific Viewpoints)	Guest Associate Editor
2011	IEICE Transactions (Special Section on Recent Progress in Nonlinear Theory and Its Applications)	Guest Associate Editor
2004-2007	Dynamics of Continuous, Discrete and Impulsive Systems, Series B	Associate Editor
2004-2005	Circuits, Systems and Signal Processing	Co-guest Editor
<i>Invited Presentation in Conference:</i>		
10/2012	The International Conference on Advanced Technologies for Communications, Vietnam	Keynote speaker
9/2010	UWB radio: From an Idea to Implementation, 2010 IEEE International Conference on Ultra-Wideband, Nanjing, China	Tutorial speaker
10/2009	International Workshop on Nonlinear Theoretic Approach to Ambient Network, Sapporo, Japan	Invited speaker
7/2007	International Workshop on Complex Systems and Networks, Guilin, July 2007	Invited speaker
11/2002	Chinese Symposium on Nonlinear Circuits and Systems, Shenzhen, China 2002	Invited speaker
6/2001	Asia-Pacific Conference on Chaos Control and Synchronisation, Shanghai, China	Invited speaker

Special Session in Conference:

2014	International Symposium on Nonlinear Theory and Its Applications	Special session co-chair
2006	International Symposium on Nonlinear Theory and Its Applications	Co-organizer and Co-chair
2002	International Symposium on Nonlinear Theory and Its Applications	Co-organizer and Co-chair
<i>Referee for funding applications:</i>		
2012-now	Vietnam National Foundation for Science and Technology Development	Invited Specialist Referee
2010	MITACS Accelerate Cluster Internship Proposal, Canada	Referee
2010-2015	Incu-Tech Programme, Hong Kong Science and Technology Parks Corporation	Admission Panel Member
2000-now	Research Grants Council, UGC, Hong Kong Government	Invited Specialist Referee

Conference Organization and Voluntary Work for the Professional Societies:

2018	International Symposium on Turbo Codes and Iterative Information Processing	General co-chair
2015	International Symposium on Nonlinear Theory and its Applications	Technical Program Co-Chair
2015	IEEE International Symposium on Information Theory	Local Arrangement, Organizing Committee
2012	International Symposium on Computer, Consumer and Control	International Program Committee Member
2012	The Second International Conference on Complex Sciences: Theory and Applications	Technical Program Committee Member
2012-2013	Technical Committee on Nonlinear Circuits and Systems, IEEE Circuits and Systems Society	Chair
2010	IEEE International Symposium on Circuits and Systems	Track Co-chair
2009	International Conference on Complex Sciences: Theory and Applications	Technical Program Committee Member
2008-now	International Workshop on Chaos-Fractals	Technical

	Theories and Applications	Program Committee Member
2008	International Symposium on Nonlinear Theory and its Applications	General Co-Secretary
2008, 2011	International Conference on Advanced Communication Technology	Session Chair
2007	International Conference on Communications, Circuits and Systems	Track Co-chair
2005	International Workshop on Complex Systems and Networks	Organizing committee member
2007	Asia-Pacific Workshop on Chaos Control and Synchronization	Session Chair
2004	The 9th CDMA International Conference	Session Chair
1999	Mobile Multimedia Communications Design Contest, The Hong Kong Institution of Engineers (HKIE)	Vice-Chair
1999	Asia Pacific Electronics Symposium	Session Chair
1998	Professional Mobile Radio Forum	Member of Organising Committee and Technical Program Committee
1998	Asia-Pacific Mobile Communications Symposium	Vice-Chair, Technical Program Committee Member
1997	Asia-Pacific Mobile Communications Symposium	Organising Committee Member
1997	Information Infrastructure Advisory Group, Office of the Telecommunications Authority	Working Group Member on Education

Major Academic Administrative Duties*Departmental Level (I was on sabbatical leave from 09/2014-08/2015)*

2005-now	Associate Head of Department
2005-now	Chairman, Departmental Research Committee
2005-now	Member, Departmental Management Committee
2005-now	Member, MSc/PgD Award Committee
2005-now	Member, Departmental Publicity Committee
2008-2014	Member, Departmental Staffing Committee
2004-2008	Program Leader, BSc in Internet and Information Technologies
2002-2003	Member, Departmental Executive Committee
2002-2004, and 2005- 2014	Member, Departmental Learning and Teaching Committee
2001-2004	Member, Departmental Research Committee

Faculty Level

2005-now	Member, Faculty Research Committee
2016-now	Chair of the Postgraduate Scheme in Engineering
2002-2016	Coordinator of the Postgraduate Scheme in Engineering
2002-2003	Member, Faculty Board

Institutional Level

2017-now	Senate member
2011-2014	Member of Campus Development and Space Allocation Committee
2010-2014	Member of Board of School of Hotel and Tourism Management
2010-2014	Member of Grievance and Appeal Committee
2011	Departmental review panel member of COMP

Teaching Experience

Year	Subject	Score* (out of 5)
2014, 2013	Signals and Systems (BSc in IMT)	4.1 in 2014 4.0 in 2013
2015, 2013, 2011	Channel Coding (MSc)	4.6 in 2015 4.5 in 2013 3.9 in 2011
2016, 2012, 2010, 2007, 2006, 2003, 2000, 1998	Satellite Communications - Technology and Applications (MSc)	4.7 in 2016 4.6 in 2012 3.8 in 2010 4.5 in 2007 3.7 in 2006 4.04 in 2003 3.86 in 2000 3.74 in 1998
2008, 2006, 2005	CDMA Spread Spectrum Communications and Its Applications (MSc)	4.20 in 2008 4.40 in 2006 3.80 in 2005
2002, 2001, 1999	Spread Spectrum Communications and Its Applications (MSc)	3.70 in 2002 3.69 in 2001 3.92 in 1999
2005 (2H), 2005 (1H), 2004	Mobile Communications (Year 3, BEng in EIE)	3.8 for evening class in 2005(2H) 3.6 for daytime class in 2005(2H) 3.30 in 2005(1H) 3.70 in 2004
2016	Research Methodology (Year 3, BEng in EIE, BEng in ENC, BSc in IMT)	3.2 in 2016
2004, 2003, 2002 2000, 1999	Digital Transmission and Switching Systems (Year 2, BSc in Information Technology)	3.80 in 2004 3.50 in 2003 2.98 in 2002 3.45 in 2000 3.18 in 1999
1999	Communication Fundamentals (Year 1, BSc in Information Technology)	3.23 in 1999
2003, 2002	Data Communications (Year 2, Higher Diploma)	3.53 in 2003 3.42 in 2002
1993-1998	Communications Principles (Year 1, BSc in Information Technology)	
1993-1998	Communications Engineering (Year 2, Higher Diploma)	
1993-1995	Induction Course on Communications (Part-time Degree)	

*Average score about staff member (minimum of 1 point to a maximum of 5 points)

Supervision of Postgraduate Students

Supervision of EngD Dissertation

- 2010 On the Coexistence of Ultra Wideband Systems with Selected Wireless Systems
- 2005 Innovative techniques for the testing of multimode mobiles

Supervision of PhD Dissertation

- 2016 Resource Allocation and Performance Optimization in Full-Duplex MIMO/OFDMA Systems
- 2010 Relaying Methods for Cooperative Communication Networks
- 2009 Study of Short-Length Low-Density-Parity-Check Codes
- 2007 Study of multiple-input-multiple-output systems over fading channels
- 2003 Study of chaos-based communication systems in a multiple access environment

Supervision of MPhil Dissertations

- 2013 Study of Doubly-generalized LDPC Codes
- 2012 Implementation of Decoders for LDPC Block Codes and LDPC Convolutional Codes Based on the Parallel Architecture of the GPUs
- 2010 On the Analysis of Q-ary Low-density Parity-check Codes Decoder
- 2003 Enhancements in chaos-based digital communication systems
- 2001 Study of chaos-based digital communications
- 1998 Effects of power control and its imperfections in CDMA cellular mobile systems

Supervision of MSc Dissertations

<u>Year</u>	<u>Title</u>
2011	Decoding of LDPC Convolutional Codes
2011	LDPC Code Design for Cooperative Communications
2011	Construction of QC-LDPC Codes with Large Girth
2000	Performance of coded OFDM-CDMA system in Rayleigh fading channel with AWGN
2000	Traffic regulating algorithms in a dualband cellular mobile system
2000	Study of radio resources allocation for GPRS
2000	Indoor design template for antenna planning in indoor application
1999	Application of dynamic channel allocation strategies to GSM hierarchical cellular network
1999	A novel algorithm for unnecessary handover prevention
1998	Network simulation for a railway control data network using COMNET III
1998	Prediction method for the indoor radio propagation
1998	Performance comparison between GSM and PCN system design in underground subway
1997	Asynchronous transfer mode over satellite
1997	Developments in mobile satellite communications systems
1997	Asynchronous transfer mode on wireless communication
1996	Advanced handover mechanisms and their applications in DCS1800 micro-cellular system

Research Projects since 2009 (as Principal Investigator)

1. Forward-error-correction Codes with Very Low Code Rates, HK\$1.69m, Huawei Technologies Ltd., 11/2016 to 04/2018
2. Theoretical analysis and decoder design of a novel class of quasi-cyclic low-density parity-check block codes with extremely low error floor, HK\$496k, RGC GRF, 07/2015 to 06/2018
3. Research on cooperative relay selection and information theory in discrete channel with memory, HK\$189k, PolyU Matching Grant for China Projects, 12/2014 to 12/2017
4. Exploiting the Potentials of Full-Duplex Technology in OFDMA and MIMO Cellular Systems, HK\$150k, PolyU Central research grant, 10/2014 to 10/2016
5. Algorithms for High-speed Microwave Communications, HK\$1.15m, Huawei Technologies Ltd., 1/2014 to 12/2016
6. Research on cooperative relay selection and information theory in discrete channel with memory, RMB750k, National Natural Science Foundation of China, 1/2014 to 12/2017
7. Potentials of Protograph-based LDPC Code in Channel-Coded Physical-layer Network Coding, HK\$185k, PolyU Central research grant, 10/2013 to 09/2015
8. Investigation of Generalized Low-density Parity-check Decoder with Low Complexity, HK\$180k, PolyU Central research grant, 7/2012 to 7/2014
9. Designing practical joint network-channel codes for cooperative communication networks with multiple relays, HK\$923k, RGC GRF, 1/2012 to 6/2015
10. Construct High-Rate QC-LDPC Codes with Large-Girth, HK\$150k, PolyU Central research grant, 3/2011 to 11/2012
11. Algorithms for High-speed Optical Communications, HK\$700k, Huawei Technologies Ltd., 7/2010 to 6/2011
12. Design and Evaluation of Short-length Irregular Low-density-parity-check Codes with Extremely Low Error Floor, HK\$846k, RGC GRF, 10/2009 to 09/2012

Invited presentations since 2009

1. "A new type of low-density parity-check (LDPC) code --- cyclically-coupled quasi-cyclic LDPC code" at Beijing University of Posts and Telecommunications, China, 03/2016
2. "A new type of low-density parity-check (LDPC) code --- cyclically-coupled quasi-cyclic LDPC code" at Beijing Jiaotong University, China, 03/2016
3. "A novel type of low-density parity-check (LDPC) code --- cyclically-coupled quasi-cyclic LDPC code" at Shenzhen, China, 01/2016
4. "Polar codes" at Shenzhen University, Shenzhen, China, 11/2015
5. "Low-density-parity-check codes and polar codes --- codes that approach and achieve the Shannon capacity" at University of Western Australia, Perth, Australia, 07/2015
6. "Challenges of designing LDPC Codes" at Sydney University, Sydney, Australia, 07/2015
7. "Designing low-density parity-check codes with extremely low error floor", University of California, Los Angeles, USA, 05/2015
8. "Designing LDPC Decoders with High Throughput and Excellent Error Performance", Chongqing University of Posts and Telecommunications, Chongqing, China, 04/2015
9. "Polar codes: principles and challenges", Guangdong University Technology, Guangzhou, China, 04/2015
10. "Designing LDPC Decoders with High Throughput and Excellent Error Performance", Southwest University, Chongqing, China, 04/2015
11. "Polar codes" at Northeastern University, Shenyang, China, 01/2015
12. "Polar codes", Chongqing University of Posts and Telecommunications, Chongqing, China, 01/2015
13. "Research challenges of LDPC Codes" at Hefei University of Technology, Hefei, China, 11/2014
14. "Designing LDPC Decoders with High Throughput and Excellent Error Performance", Southeast University, Nanjing, China, 11/2014
15. "Recent developments and challenges of error-correction codes", Xiamen University, Xiamen, China, 11/2014
16. "Designing LDPC Decoders with High Throughput and Excellent Error Performance", Nanjing University of Posts and Telecommunications, Nanjing, China, 11/2014
17. "Basic concepts and challenges of LDPC Codes", Central South University, Changsa, China, 10/2014
18. "Brief Review of LDPC Codes" at Northeastern University, China, 09/2014
19. Plenary talk "Chaotic Communications: The Past, The Present and The Future" at International Conference on Advanced Technologies for Communications, 10/2012
20. "Some Recent developments of channel coding" at Beijing Jiaotong University, China, 11/2011
21. "How to Run Your LDPC Decoders Faster?" at Xiamen University, China, 05/2011

22. Tutorial speaker of “UWB radio: From an Idea to Implementation” at 2010 IEEE International Conference on Ultra-Wideband, Nanjing, China, 9/2010
23. “Rate-Compatible LDPC Codes” at Huawei Technologies Co. Ltd., Shanghai, China, 04/2010
24. “LDPC Codes” at Northeastern University, China, 04/2010
25. “Challenges in LDPC Code Design” at Guilin University of Electronic Technology, China, 04/2010
26. “Recent developments and challenges of low-density parity-check (LDPC) codes” at Beijing Jiaotong University, China, 03/2010
27. “Constrained Scale-Free LDPC Codes” at International Workshop on Nonlinear Theoretic Approach to Ambient Network, Sapporo, Japan, 10/2009
28. “Rate-Compatible Block-Structured LDPC Codes” at Huawei Technologies Co. Ltd., Shanghai, China, 10/2009
29. “A Class of Structured LDPC codes with Low Encoding Complexity” at Huawei Technologies Co. Ltd., Shanghai, China, 10/2009
30. “Constructing LDPC Codes with Extremely Low Error Floor” at Xiamen University, China, 06/2009

Publication List

Patents

1. F.C.M. Lau and C.K. Tse, Methods and Systems for Transceiving Chaotic Signals, US patent no. 7,593,531 B2, Granted 2009, U.S.A.
2. C.K. Tse and F.C.M. Lau, Methods and Systems for Transmitting Digital Messages, US patent no. 7,711,116 B2, Granted 2010, U.S.A.
3. F.C.M. Lau, W.M. Tam and C.K. Tse, Method and system for encoding and decoding low-density-parity-check (LDPC) codes, U.S. patent no. 8,196,012 B2, Granted 2012, U.S.A.
4. C.W. Sham, X. Chen, F.C.M. Lau, Y. Zhao, and W.M. Tam, High-throughput decoder architecture for low-density parity-check convolutional codes, US patent no. 8,671,323 B2, Granted 2014, U.S.A.
5. C.W. Sham, J. Fan, W.M. Tam, Q. Lu, and F.C.M. Lau, Structure and decoder architecture of a class of low-density parity-check codes, application no. US 14/826,161, filed August 2015, U.S.A.
6. 谭伟文、刘重明、谢智刚，《对数据进行编码和解码的方法和系统》，中国发明专利，授权公告号：CN102035556B，授权公告号日：2013年9月25日。
7. 岑超荣、陈旭、谭伟文、赵越、刘重明、喻凡，《译码装置》，中国发明专利申请，公开(公告)号：CN102696176B，授权公告号日：2014年7月16日。国际申请号 PCT/CN2011/077678。Chaorong Cen, Xu Chen, Weiwen Tan, Yue Zhao, Chongming Liu and F. Yu, Decoding Device, International Application No.: PCT/CN2011/077678.
8. 岑超荣、范剑峰、谭伟文、吕青、刘重明，《一种 CC-QC-LDPC 码的构建方法及译码装置》，中国发明专利申请，申请号：201410662824.5
9. 金丽丽、刘重明、谭伟文、岑超荣、吕青，《一种 polar 码的编译码方法和编译码装置》，国际申请号 International Application Number PCT/CN2015/091202。

Monographs

1. W.M. Tam, F.C.M. Lau and C.K. Tse, *Digital Communications with Chaos: Multiple Access Techniques and Performance Evaluation*, Oxford, Great Britain: Elsevier, 238 pages, 2007. (ISBN 978 0080 451510 or 0080 451519)
2. 谭伟文、刘重明、谢智刚，《数字混沌通信：多址方式及性能评估》，北京科学出版社，2007。(ISBN 978 703 0190307)
3. F.C.M. Lau and C.K. Tse, *Chaos-Based Digital Communication Systems: Operation, Analysis and Evaluation*, Heidelberg, Germany: Springer-Verlag, 2003. (ISBN 3-540-00602-8)

Book Chapter

1. C.T. Cheng, C.K. Tse and F.C.M. Lau, "A Network Structure for Delay-Aware Applications in Wireless Sensor Networks," *Building Sensor Networks: From Design to Applications*, edited by Ioanis Nikolaidis and Krzysztof Iniewski, CRC Press, 2013.
2. C.T. Cheng, C.K. Tse and F.C.M. Lau, "Network Structure for Delay-Aware Applications in Wireless Sensor Networks," *Embedded and Networking Systems: Design, Software, and Implementation*, edited by Gul N. Khan and Krzysztof Iniewski, CRC Press, 2013.
3. Geza Kolumban, Tamas Krebesz, Chi Kong Tse and F.C.M. Lau, "Basics of Communications Using Chaos," *Chaotic Signals in Digital Communications*, Edited by Marcio Eisenkraft, Romis Attux and Ricardo Suyama, CRC Press, 2013.

4. F.C.M. Lau and C.K. Tse, "Chaos-Based Modulation and Demodulation Techniques," *Chaos Applications in Telecommunications*, Edited by Peter Stavroulakis, Boca Raton, USA: CRC Press, Oct. 2005.

Technical Report

S.M. Wong, F.C.M. Lau and Esmond C.M. Mok, *Evaluation Report on Interference Impacts of Ultra Wideband Device on Satellite Receiving Station*, Office of the Telecommunications Authority (OFTA) of the Hong Kong Special Administrative Region, 2009.

Journal papers

1. Tamas Istvan Krebesz, G. Kolumban, C.K. Tse, F.C.M. Lau, and Hairong Dong, "Use of UWB Impulse Radio Technology in In-Car Communications: Power Limits and Optimization," *IEEE Transactions on Vehicular Technology*, to appear.
2. Ling Fu Xie, Ivan Wang-Hei Ho, Soung Chang Liew, Lu Lu, and F.C.M. Lau, "The Feasibility of Mobile Physical-Layer Network Coding with BPSK Modulation," *IEEE Transactions on Vehicular Technology*, to appear.
3. Guofa Cai, Yi Fang, Guojun Han, F.C.M. Lau, and Lin Wang, "A Square-Constellation-Based M-ary DCSK Communication System," *IEEE Access*, vol. 4, pp. 6295-6303, Sept. 2016.
4. Yi Fang, Guojun Han, Pingping Chen, F.C.M. Lau, Guanrong Chen, and Lin Wang, "A Survey on DCSK-based Communication Systems and Their Application to UWB Scenarios," *IEEE Communications Surveys & Tutorials*, vol. 18, no. 3, pp. 1804-1837, Third Quarter, 2016.
5. Yunxiang Jiang, F.C.M. Lau, Ivan W. H. Ho, and Yi Gong, "Resource Allocation for Multi-User OFDMA Hybrid Full-/Half-Duplex Relaying Systems With Direct Links," *IEEE Transactions on Vehicular Technology*, vol. 65, no. 8, pp. 6101-6118, Aug. 2016.
6. Yi Fang, Guojun Han, Yong Liang Guan, Guoan Bi, F.C.M. Lau and Lingjun Kong, "Finite-length Extrinsic Information Transfer Analysis and Design of Protograph low-density parity-check Codes for Ultra-High-Density Magnetic Recording Channels," *IET Communications*, Volume 10, Issue 11, pp. 1303 – 1311, July 2016.
7. Tingting Huang, Lin Wang, Weikai Xu, and F.C.M. Lau, "Multilevel Code-Shifted Differential-Chaos-Shift-Keying System," *IET Communications*, Volume 10, Issue 10, pp. 1189–1195, July 2016.
8. D.W. Yue and F.C.M. Lau and Qian Wang, "Log-Average-SNR Ratio and Cooperative Spectrum Sensing," *Journal of Communications and Networks*, vol. 18, no. 3, pp. 311-319, June 2016.
9. Yi Fang, Yong Liang Guan, Guoan Bi, Lin Wang, and F.C.M. Lau, "Rate-Compatible Root-Protograph LDPC Codes for Quasi-Static Fading Relay Channels," *IEEE Transactions on Vehicular Technology*, vol. 65, no. 4, pp. 2741-2747, April 2016.
10. Kehao Wang, F.C.M. Lau, Lin Chen and Robert Schober, "Pricing Mobile Data Offloading: A Distributed Market Framework," *IEEE Transactions on Wireless Communications*, vol. 15, no. 2, pp. 913-927, Feb. 2016.
11. Yunxiang Jiang, F.C.M. Lau, Shiyuan Wang, and C.K. Tse, "Parameter Identification of Chaotic Systems by A Novel Dual Particle Swarm Optimization," *International Journal of Bifurcation and Chaos*, Vol. 26, No. 2, 1650024 (16 pages), Feb. 2016.
12. Q. Lu, J. Fan, C.W. Sham, W.M. Tam, and F.C.M. Lau, "A 3.0 Gb/s Throughput Hardware-Efficient Decoder for Cyclically-Coupled QC-LDPC Codes," *IEEE Transactions on Circuits and Systems I*, vol. 63, no. 1, pp. 134-145, Jan. 2016.

13. Yunxiang Jiang, He (Henry) Chen, F.C.M. Lau, Peng Wang, and Yonghui Li, "Full-Duplex OFDMA Multi-user Cellular Systems: Resource allocation and User Pairing," *Transactions on Emerging Telecommunications Technologies*, Published online in Wiley Online Library, DOI: 10.1002/ett.3005, 2015.
14. Yi Fang, Guoan Bi, Yong Liang Guan, and F.C.M. Lau, "A Survey on Protograph LDPC Codes and Their Applications," *IEEE Communications Surveys & Tutorials*, vol. 17, no. 4, pp. 1989-2016, Fourthquarter 2015. doi: 10.1109/COMST.2015.2436705.
15. D.W. Yue and F.C.M. Lau, "Average Transmit Power Gain of MIMO Fading Channels Over SISO AWGN Channels," *Wireless Personal Communications*, Vol. 84, Issue 1, pp. 719-28, September 2015.
16. Y. Zhao, F.C.M. Lau, Z. Zhu and W. Zhang, "Generation of Luby Transform Codes with Low Redundancy," *Int. J. Bifurcation and Chaos*, vol. 25, no. 5, 1550072 (8 pages), 2015.
17. J. Wu, C.K. Tse and F.C.M. Lau, "Concept of Node Usage Probability from Complex Networks and Its Applications to Communication Network Design," *IEEE Transactions on Circuits and Systems I*, vol. 62, no. 4, pp. 1195-1204, April 2015.
18. Yunxiang Jiang, F.C.M. Lau, Zeeshan Sattar, Ivan W. H. Ho, and Qing F. Zhou, "Paired-Relay Selection Schemes for Two-way Relaying with Network Coding," *IET Communications*, vol. 9, issue 6, pp. 888-896, 2015.
19. Yunxiang Jiang, F.C.M. Lau, Hongbin Chen, and Feng Zhao, "Energy efficiency optimisation in full-duplex relay systems," *Transactions on Emerging Telecommunications Technologies*, Article first published online: 17 FEB 2015, DOI: 10.1002/ett.2926.
20. J. Wu, C.K. Tse and F.C.M. Lau, "Optimizing Performance of Communication Networks: An Application of Network Science," *IEEE Transactions on Circuits and Systems II*, vol. 62, no. 1, pp. 95-99, January 2015.
21. Lingjun Kong, Yunxiang Jiang, Guojun Han, F.C.M. Lau, Yong Liang Guan, "Improved Min-Sum Decoding for Two-dimensional Inter-Symbol-Interference Channels," *IEEE Transactions on Magnetics*, Vol. 50, No. 11, pp. November 2014, Article#: 3101304.
22. D.W. Yue, F.C.M. Lau and Q. Wang, "On the Diversity Order of a General Cooperative Relaying Communication System," *Wireless Personal Communications*, Volume 77, Issue 1, pp. 605-631, July 2014.
23. Y. Zhao and F.C.M. Lau, "Implementation of Decoders for LDPC Block Codes and LDPC Convolutional Codes Based on GPUs," *IEEE Transactions on Parallel and Distributed Systems*, vol. 25, no. 3, pp. 663-672, 2014.
24. J. Wu, C.K. Tse, F.C.M. Lau and I.W.H. Ho, "Analysis of Communication Network Performance From a Complex Network Perspective," *IEEE Transactions on Circuits and Systems I*, vol. 60, no. 12, pp. 3303-3316, 2013.
25. Qing F. Zhou, Q.T. Zhang and F.C.M. Lau, "Diophantine Approach to Blind Interference Alignment of Homogeneous K-user 2x1 MISO Broadcast Channels," *IEEE Journal on Selected Areas in Communications, Special Issue on Virtual MIMO*, vol. 31, no. 10, pp. 2141-2153, 2013.
26. Chong Fu, Wei-hong Meng, Yong-feng Zhan, Zhi-liang Zhu, F.C.M. Lau, Chi K. Tse, Hong-feng Ma, "An efficient and secure medical image protection scheme based on chaotic maps," *Computers in Biology and Medicine*, Volume 43, Issue 8, pp. 1000-1010, 2013.
27. Kehao Wang, Quan Liu and F.C.M. Lau, "Multi-channel Opportunistic Access by Overhearing Primary ARQ Messages," *IEEE Transactions on Vehicular Technology*, vol. 62, no. 7, pp. 3486-3492, 2013.

28. C.W. Sham, X. Chen, F.C.M. Lau, Y. Zhao, and W.M. Tam, "A 2.0 Gb/s Throughput Decoder for QC-LDPC Convolutional Codes," *IEEE Transactions on Circuits and Systems I*, vol. 60, no. 7, pp. 1857-1869, 2013.
29. Pingping Chen, Lin Wang and F.C.M. Lau, "One Analog STBC-DCSK Transmission Scheme Not Requiring Channel State Information," *IEEE Transactions on Circuits and Systems I*, vol. 60, no. 4, pp. 1027-1037, April 2013.
30. S.Y. Fan, T.L. Wong, F.C.M. Lau and Y. He, "A Fast LDPC-Code Simulator Based on Compressed Parity-Check Matrices," *Wireless Communications and Mobile Computing*, Volume 13, Issue 7, pages 663-670, May 2013.
31. Q. Wang, D.W. Yue and F.C.M. Lau, "Outage Performance and Cooperative Diversity under Amplify and Forward Relaying in Cognitive Radio Networks," *Wireless Personal Communications*, Volume 69, Issue 2, pp. 891-914, March 2013.
32. Pingping Chen, Yi Fang, Lin Wang and F.C.M. Lau, "Decoding Generalized Joint Channel Coding and Physical Network Coding in the LLR Domain," *IEEE Signal Processing Letters*, vol. 20, no. 2, pp. 121-124, February 2013.
33. Yi Fang, Pingping Chen, Lin Wang and F.C.M. Lau, "Design of Protograph LDPC Codes for Partial Response Channels," *IEEE Transactions on Communications*, vol. 60, no. 10, pp. 2809-2819, 2012.
34. Yi Fang, Pingping Chen, Lin Wang, F.C.M. Lau and Kai-Kit Wong, "Performance Analysis of Protograph-based LDPC Codes with Spatial Diversity," *IET Communications*, vol. 6, issue 17, pp. 2941-2948, 2012.
35. Q. Wang, D.W. Yue and F.C.M. Lau, "Performance of Cooperative Spectrum Sensing Over Fading Channels With Low Signal-to-noise Ratio," *IET Communications*, vol. 6, issue 13, pp. 1988-1999, 2012.
36. G. Kolumban, Tamas Istvan Krebesz, and F.C.M. Lau, "Theory and Application of Software Defined Electronics: Design Concepts for the Next Generation of Telecommunications and Measurement Systems," *IEEE Circuits and Systems Magazine*, vol. 12, no. 2, pp. 8-34, 2012.
37. Y. Zhao, F.C.M. Lau, Z. Zhu and H. Yu, "Scale-free Luby Transform Codes," *Int. J. Bifurcation and Chaos*, Vol. 22, No. 4, 1250094 (11 pages), April 2012.
38. Q. Wang, D.W. Yue and F.C.M. Lau, "Optimisation of Throughput in Cognitive Radio Networks: An Analysis at the Data Link Layer," *IET Communications*, vol. 6, issue 1, pp. 1-12, 2012.
39. E. Mok, F.C.M. Lau, L. Xia, G. Retscher and H. Tian, "Influential factors for decimetre level positioning using ultra wide band technology," *Survey Review*, Vol. 44, No. 324, pp. 37-44, Jan. 2012.
40. Y. Zhao, X. Chen, C.-W. Sham, W. M. Tam, and F.C.M. Lau, "Efficient Decoding of QC-LDPC Codes Using GPUs," in *Algorithms and Architectures for Parallel Processing*, ser. Lecture Notes in Computer Science, Y. Xiang, A. Cuzzocrea, M. Hobbs, and W. Zhou, Eds. Springer Berlin / Heidelberg, 2011, vol. 7016, pp. 294-305. (also appeared in *Proceedings, 11th International Conference on Algorithms and Architectures for Parallel Processing*, Oct. 2011, Melbourne, Australia)
41. Y. Ren, F.C.M. Lau, C.K. Tse and H. Dong, "Impact of Topology on the Maximum Multicast Throughput in Communication Networks with Network Coding," *Int. J. Bifurcation and Chaos*, vol. 21, no. 9, pp. 2741-2748, Nov. 2011.
42. X. Chen and F.C.M. Lau, "Constructing High-Rate QC-LDPC Codes with Large-Girth Based on Shortened Array Codes," *REV Journal on Elect. and Commun.*, vol. 1, no. 3, pp. 137-144, 2011. (Invited Article)

43. F.C.M. Lau, W.M. Tam and C.K. Tse, "Increasing the Local Girth of Irregular LDPC Codes Based on Degree-spectrum Analysis," *IET Communications*, vol. 5, issue 11, pp. 1506–1511, 2011.
44. X. Chen and F.C.M. Lau, "Optimization of LDPC Codes with Deterministic UEP Properties," *IET Communications*, vol. 5, issue 11, pp. 1560–1565, 2011.
45. X. Zheng, F.C.M. Lau and C.K. Tse, "Performance Evaluation of Irregular LDPC Codes at High SNR," *IET Communications*, vol. 5, issue 11, pp. 1587–1596, 2011.
46. X. Chen, Qing F. Zhou, Ting-wai Siu and F.C.M. Lau, "Asymptotic Analysis of Opportunistic Relaying Based on the Max-Generalized-Mean Selection Criterion," *IEEE Transactions on Wireless Communications*, vol. 10, no. 4, pp. 1050-1057, April 2011.
47. C.T. Cheng, C.K. Tse and F.C.M. Lau, "A Clustering Algorithm for Wireless Sensor Networks Based on Social Insect Colonies," *IEEE Sensors Journal*, vol. 11, no. 3, pp. 711-721, March 2011. (**IEEE Sensors Journal "25 most downloaded Sensors Journal papers in Dec. 2011 and also for 6 out of 12 months in 2012"**)
48. C.T. Cheng, C.K. Tse and F.C.M. Lau, "A Delay-Aware Data Collection Network Structure for Wireless Sensor Networks," *IEEE Sensors Journal*, vol. 11, no. 3, pp. 699-710, March 2011. (**IEEE Sensors Journal "25 most downloaded Sensors Journal papers in Dec. 2011; for 10 out of 12 months in 2012; in July to December 2013, in January to March, and July to December 2014; in January to March, May, July, August 2015"**)
49. Qing F. Zhou, Yonghui Li, F.C.M. Lau and Branka Vucetic, "Decode-and-forward Two-way Relaying with Network Coding and Opportunistic Relay Selection," *IEEE Transactions on Communications*, vol. 58, no. 11, pp. 3070-3076, November 2010.
50. C.T. Cheng, C.K. Tse and F.C.M. Lau, "An Energy-Aware Scheduling Scheme for Wireless Sensor Networks," *IEEE Transactions on Vehicular Technology*, vol. 59, no. 7, pp. 3427-3444, Sept. 2010.
51. F.C.M. Lau and Chi K. Tse, "Application of Complex Networks in Coding," *IEEE Circuits and Systems Magazine: Special Issue on Complex Networks Applications in Circuits and Systems*, vol. 10, no. 3, pp. 38-47, 2010.
52. X. Zheng, F.C.M. Lau and Chi K. Tse, "Constructing Short-Length Irregular LDPC Codes with Low Error Floor," *IEEE Transactions on Communications*, vol. 58, no. 10, pp. 2823-2834, October 2010.
53. Chi K. Tse, Jing Liu and F.C.M. Lau, "A network perspective of the stock market," *Journal of Empirical Finance*, vol. 17, no. 4, pp. 659-667, September 2010.
54. Xu Chen, Ting-wai Siu, Qing F. Zhou and F.C.M. Lau, "High-SNR Analysis of Opportunistic Relaying Based on the Maximum Harmonic Mean Selection Criterion," *IEEE Signal Processing Letters*, vol. 17, no. 8, pp. 719-722, August 2010.
55. Qing F. Zhou and F.C.M. Lau, "Performance Bounds of Opportunistic Cooperative Communications with CSI-assisted Amplify-and-Forward Relaying and MRC Reception," *IEEE Transactions on Vehicular Technology*, vol. 59, no. 5, pp. 2159-2165, June 2010.
56. X.H. Shen and F.C.M. Lau, "Q-ary LDPC Decoder with Euclidean-distance-based Sorting Criterion," *IEEE Communications Letters*, vol. 14, no. 5, pp. 444-446, May 2010.
57. W.M. Tam, F.C.M. Lau and C.K. Tse, "A Class of QC-LDPC Codes with Low Encoding Complexity and Good Error Performance," *IEEE Communications Letters*, vol. 14, no. 2, pp. 169-171, Feb. 2010.

58. F. Xu, F.C.M. Lau and D.W. Yue, "Diversity Order for Amplify-and-Forward Dual-Hop Systems with Fixed-Gain Relay under Nakagami Fading Channels," *IEEE Transactions on Wireless Communications*, vol. 9, no. 1, pp. 92-98, Jan. 2010.
59. F. Xu, F.C.M. Lau, D.W. Yue and S.F. Hau, "Error Rate and Diversity Order of Multinode Cooperative Communications in Nakagami Fading Channels," *IET Communications*, vol. 3, issue 12, pp. 1843-1850, Dec. 2009.
60. F. Xu, Qing F. Zhou, F.C.M. Lau, D.W. Yue and S.F. Hau, "Performance Analysis of Serial Cooperative Communications with Decode-and-Forward Relaying and Blind-EGC Reception under Nakagami Fading Channels," *IEEE Transactions on Wireless Communications*, vol. 8, no. 11, pp. 5455-5460, Nov. 2009.
61. X. Zheng, F.C.M. Lau, Chi K. Tse, Yejun He and S.F. Hau, "Application of Complex-Network Theories to the Design of Short-length LDPC Codes," *IET Communications*, vol. 3, issue 10, pp. 1569-1577, Oct. 2009.
62. Qing F. Zhou, F.C.M. Lau and S.F. Hau, "Asymptotic Analysis of Opportunistic Relaying Protocols," *IEEE Transactions on Wireless Communications*, vol. 8, no. 8, pp. 3915-3920, Aug. 2009.
63. C.T. Cheng, C.K. Tse and F.C.M. Lau, "A Scheduling Scheme for Wireless Sensor Networks Based on Social Insect Colonies," *IET Communications*, volume 3, issue 5, pp. 714-722, May 2009.
64. F. Xu, F.C.M. Lau, Q.F. Zhou and D.W. Yue, "Outage Performance of Cooperative Communication Systems Using Opportunistic Relaying and Selection Combining Receivers," *IEEE Signal Processing Letters*, vol. 16, no. 2, pp. 113-116, February 2009.
65. W.M. Tam, F.C.M. Lau and C.K. Tse, "Complex-Network Modeling of a Call Network," *IEEE Transactions on Circuits and Systems I*, vol. 56, no. 2, pp. 416-429, February 2009.
66. Qing F. Zhou and F.C.M. Lau, "Two Incremental Relaying Protocols for Cooperative Networks," *IET Communications*, volume 2, issue 10, pp. 1272-1278, November 2008.
67. W.M. Tam, F.C.M. Lau and C.K. Tse, "Study on mobile communications with a complex underlying user network," *Advances in Mechanics*, vol. 38, no. 6, pp. 815-826, November 2008.
68. Qing F. Zhou and F.C.M. Lau, "Analytical Performance of M-ary Time-Hopping Orthogonal PPM UWB Systems under Multiple Access Interference," *IEEE Transactions on Communications*, vol. 56, no. 11, pp. 1780-1784, November 2008.
69. C.T. Cheng, C.K. Tse and F.C.M. Lau, "A Tree-based Data Collecting Network Structure for Wireless Sensor Networks," *Journal of Electronic Science and Technology of China*, vol. 6, no. 3, pp. 274-278, September 2008. (Invited Paper)
70. X. Chen, S.C. Wong, C.K. Tse and F.C.M. Lau, "Oscillation and period doubling in TCP/RED system: analysis and verification," *Int. J. Bifurcation and Chaos*, Vol. 18, No. 5, pp. 1459-75, May 2008, Singapore.
71. Y. He, F.C.M. Lau and C.K. Tse, "Study of Bifurcation Behavior of Two-Dimensional Turbo Product Code Decoders," *Chaos, Solitons & Fractals*, Volume 36, Issue 2, Pages 500-511, April 2008.
72. F. Xu, D.W. Yue, F.C.M. Lau and Q.F. Zhou, "Closed-form Expressions for Symbol Error Probability of Orthogonal Space-Time Block Codes over Rician-Nakagami Channels," *IET Communications*, Volume 1, Issue 4, August 2007, pp. 655-661.
73. F. Xu, F.C.M. Lau and D.W. Yue, "Cross-Layer Design Scheme For Multihop Communications," *IET Electronics Letters*, Volume 43, Issue 14, 5 July 2007.

74. R. Xu and F.C.M. Lau, "A Novel Approach to Analyzing V-BLAST MIMO Systems with Two Transmit Antennas," *IEEE Transactions on Wireless Communications*, vol. 6, no. 5, pp. 1591-1595, May 2007.
75. X. Zheng, F.C.M. Lau, Chi K. Tse and S.C. Wong, "Study of Bifurcation Behavior of LDPC Decoders", *International Journal of Bifurcation and Chaos*, vol. 16, no. 11, pp. 3435-3449, Nov. 2006.
76. Wai M. Tam, F.C.M. Lau, Y. Xia, Chi K. Tse and Xiuming Shan, "Effect of Clustering in a Complex User Network on the Telephone Traffic", *Physica A: Statistical and Theoretical Physics*, Volume 371, Issue 2, pp. 745-753, November 2006.
77. Y. Xia, Chi K. Tse, and F.C.M. Lau, Wai M. Tam and Xiuming Shan, "Telephone Traffic Analysis Based on Scale-Free User Network and Scale-Free Load Distribution", *Dynamics of Continuous, Discrete and Impulsive Systems, Series B: Applications & Algorithms*, vol. 13, no. 3, pp. 345-352, 2006.
78. Y. Xia, Chi K. Tse, Wai M. Tam, F.C.M. Lau and Michael Small, "Analysis of Telephone Network Traffic Based on a Complex User Network", *Physica A: Statistical and Theoretical Physics*, Volume 368, Issue 2, pp. 583-594, August 2006.
79. W.M. Tam, F.C.M. Lau and C.K. Tse, "Generalized correlation-delay-shift-keying scheme for noncoherent chaos-based communication systems," *IEEE Transactions on Circuits and Systems I*, vol. 53, no. 3, pp. 712-721, Mar. 2006.
80. R. Xu and F.C.M. Lau, "Performance analysis for MIMO systems using zero forcing detector over fading channels," *IEE Proceedings-Communications*, Vol. 153, Issue 1, pp.74-80, February 2006.
81. Y. Xia, C.K. Tse, F.C.M. Lau and G. Kolumban, "Performance of frequency-modulated differential-chaos-shift-keying communication system over multipath fading channels with delay spread," *International Journal of Bifurcation and Chaos*, vol. 15, no. 12, pp. 4027-4033, Dec. 2005.
82. F.C.M. Lau and G. Kolumbán, "Performance limit of chaotic digital waveform communication systems: approach of maximizing a posteriori probability," *Circuits, Systems and Signal Processing*, Vol. 24, No. 5, pp. 639-655, October 2005.
83. G. Kolumbán, F.C.M. Lau and C.K. Tse, "Generalization of waveform communications: the Fourier analyzer approach," *Circuits, Systems and Signal Processing*, Vol. 24, No. 5, pp. 451-474, October 2005.
84. Y. Xia, C.K. Tse, W.M. Tam, F.C.M. Lau and M. Small, "Scale-free user-network approach to telephone network traffic analysis," *Physical Review E*, Vol. 72, 026116, August 2005.
85. Y. Xia, C.K. Tse and F.C.M. Lau, "Performance of differential chaos-shift-keying digital communication systems over a multipath fading channel with delay spread," *IEEE Transactions on Circuits and Systems II*, vol. 51, no. 9, pp. 680-684, Dec. 2004.
86. W.M. Tam, F.C.M. Lau and C.K. Tse, "Adaptive approach for detection in chaos-based digital communication systems with transmitted-reference," *Dynamics of Continuous, Discrete and Impulsive Systems, Series B: Applications & Algorithms*, Watam Press, Canada, vol. 11a, pp. 9-18, Dec. 2004.
87. M. Small, C.K. Tse and F.C.M. Lau, "Chaos communication using chaos," *Dynamics of Continuous, Discrete and Impulsive Systems, Series B: Applications & Algorithms*, Watam Press, Canada, vol. 11a, pp. 104-111, Dec. 2004.
88. W.M. Tam, F.C.M. Lau and C.K. Tse, "Performance analysis of multiple access chaotic-sequence spread-spectrum communication systems using

- parallel interference cancellation receivers,” *International Journal of Bifurcation and Chaos*, vol. 14, no. 10, pp. 3633-3646, Oct. 2004.
89. W.M. Tam, F.C.M. Lau, C.K. Tse and A. J. Lawrance, “Exact analytical bit-error-rates for multiple access chaos-based communication systems,” *IEEE Transactions on Circuits and Systems II*, vol. 51, no. 9, pp. 473-481, 2004.
 90. M.H.F. Leung and F.C.M. Lau, “Alternative protocol for measuring multiple power level of GSM/GPRS mobiles,” *IEE Electronics Letters*, vol. 40, no. 18, pp. 1128-1129, 2004.
 91. W.M. Tam, F.C.M. Lau and C.K. Tse, “A multiple access scheme for chaos-based digital communication systems utilizing transmitted reference,” *IEEE Transactions on Circuits and Systems I*, vol. 51, no. 9, pp. 1868-1878, 2004.
 92. M.H.F. Leung and F.C.M. Lau, “Protocol for measuring the performance of the demodulator in a WCDMA user equipment,” *IEE Electronics Letters*, vol. 40, no. 16, pp. 1005-1006, 2004.
 93. F.C.M. Lau and C.K. Tse, “Performance of chaos-based digital communication systems in the presence of a pulsed-noise jammer,” *Circuits, Systems and Signal Processing*, vol. 23, no. 3, pp. 169-194, 2004.
 94. C.K. Fung and F.C.M. Lau, “Design Template and Measurements for Antenna Planning in an Indoor Radio Environment at 1800 MHz,” *International Journal of Wireless Information Networks*, Vol. 11, No. 2, pp. 105-113, April 2004.
 95. J. Feng, C.K. Tse and F.C.M. Lau, “Reconstruction of chaotic signals with application to channel equalization in chaos-based communication systems,” *International Journal of Communication Systems*, Vol. 17, Issue 3, pp. 217-232, April 2004.
 96. F.C.M. Lau, C.K. Tse, M. Ye and S.F. Hau, “Co-existence of chaos-based and conventional communication systems of equal bit rate,” *IEEE Transactions on Circuits and Systems I*, Vol. 51, No. 2, pp.391-408, Feb. 2004.
 97. W.M. Tam, F.C.M. Lau and C.K. Tse, “An approach to calculating the bit error rates of multiple access chaotic-sequence spread-spectrum communication systems employing multi-user detectors,” *International Journal of Bifurcation and Chaos*, vol. 14, no. 1, pp. 183-206, Jan. 2004.
 98. K.Y. Cheong, F.C.M. Lau and C.K. Tse, “Permutation-based M-ary chaotic-sequence spread-spectrum communication systems,” *Circuits, Systems and Signal Processing*, Vol. 22, No. 6, pp. 567-577, 2003.
 99. F.C.M. Lau and C.K. Tse, “Performance of chaos-based communication systems under the influence of co-existing conventional spread-spectrum systems,” *IEEE Transactions on Circuits and Systems I*, Vol. 50, No. 11, pp.1475-1481, Nov. 2003.
 100. Y. Zhou, C.K. Tse, S.S. Qiu and F.C.M. Lau, “Applying resonant parametric perturbation to control chaos in the buck dc/dc converter with phase shift and frequency mismatch considerations,” *International Journal of Bifurcation and Chaos*, Vol. 13, No. 11, pp.3459-3471, Nov. 2003.
 101. J. Feng, C.K. Tse and F.C.M. Lau, “A neural-network-based channel equalization strategy for chaos-based communication systems,” *IEEE Transactions on Circuits and Systems I*, Vol. 50, No. 7, July 2003, pp.954-957.
 102. F.C.M. Lau and C.K. Tse, “On optimal detection of noncoherent chaos-shift-keying signals in a noisy environment,” *International Journal of Bifurcation and Chaos*, Vol. 13, No. 6, pp.1587-1597, June 2003.

103. F.C.M. Lau, K.Y. Cheong and C.K. Tse, "Permutation-based DCSK and multiple access DCSK systems," *IEEE Transactions on Circuits and Systems I*, Vol. 50, No.6, pp.733-742, June 2003.
104. W.M. Tam, F.C.M. Lau and C.K. Tse, "Analysis of bit error rates for multiple access CSK and DCSK communication systems," *IEEE Transactions on Circuits and Systems I*, Vol. 50, No.5, pp.702-707, May 2003.
105. F.C.M. Lau and C.K. Tse, "Approximate-optimal detection for chaos communication systems," *International Journal of Bifurcation and Chaos*, Vol. 13, No. 5, pp.1329-1335, May 2003.
106. C.K. Tse and F.C.M. Lau, "A return-map regression approach for noncoherent detection in chaotic digital communications," *International Journal of Bifurcation and Chaos*, Vol. 13, No. 3, pp. 685-690, Mar. 2003.
107. C.K. Tse, F.C.M. Lau, K.Y. Cheong and S.F. Hau, "A return-map based approach for noncoherent detection in chaotic digital communications," *IEEE Transactions on Circuits and Systems I*, Vol. 49, No.10, pp. 1495-1499, Oct. 2002.
108. F.C.M. Lau, M. Ye, C.K. Tse and S.F. Hau, "Anti-jamming performance of chaotic digital communication systems," *IEEE Transactions on Circuits and Systems I*, Vol. 49, No.10, pp. 1486-1494, Oct. 2002.
109. J. Feng, C.K. Tse and F.C.M. Lau, "Channel equalization for chaotic communication systems," *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, vol. E85-A, no. 9, pp. 2015-2024, September 2002.
110. F.C.M. Lau and W.M. Tam, "Achievable-SIR-based predictive closed-loop power control in a CDMA mobile system," *IEEE Transactions on Vehicular Technology*, Vol. 51, No. 4, pp. 720-728, July 2002.
111. F.C.M. Lau and C.K. Tse, "Optimum correlator-type receiver design for CSK communication systems," *International Journal of Bifurcation and Chaos*, Vol. 12, No. 5, pp. 1029-1038, May 2002.
112. W.M. Tam, F.C.M. Lau, C.K. Tse and M.M. Yip, "An approach to calculating the bit error probability of a coherent chaos-shift-keying digital communication system under a noisy multi-user environment," *IEEE Transactions on Circuits and Systems I*, Vol. 49, No.2, pp. 210-223, February 2002.
113. F.C.M. Lau, M.M. Yip, C.K. Tse and S.F. Hau, "A multiple access technique for differential chaos shift keying," *IEEE Transactions on Circuits and Systems I*, Vol. 49, No.1, pp. 96-104, January 2002.
114. F.C.M. Lau and W.M. Tam, "Novel SIR-estimation-based power control in a CDMA mobile radio system under multipath environment," *IEEE Transactions on Vehicular Technology*, Vol. 50, No. 1, pp.314-320, January 2001.
115. F.C.M. Lau and W.M. Tam, "Predictive closed-loop power control in CDMA mobile systems," *IEE Electronics Letters*, Vol. 37, No. 1, pp. 52-54, January 2001.
116. W.M. Tam and F.C.M. Lau, "Power control mixing C/I balancing and constant-received signal strength in a CDMA mobile communications system," *IEE Electronics Letters*, Vol. 35, No. 19, pp. 1609-1611, September 1999.
117. F.C.M. Lau and J. Chan, "Analysis and simulation of buffered B-networks," *Journal of Circuits, Systems and Computers*, Vol. 9, Nos. 3 & 4, pp. 199-221, 1999.
118. W.M. Tam and F.C.M. Lau, "Analysis of power control and its imperfections in CDMA cellular systems," *IEEE Transactions on Vehicular Technology*, Vol. 48, No. 5, pp. 1706-1717, September 1999.

119. F.C.M. Lau and W.M. Tam, "Intelligent closed-loop power algorithm in a CDMA mobile radio system," *IEE Electronics Letters*, Vol.35, No.10, pp.785-786, May 1999.
120. F.C.M. Lau and W.C. Poon, "Throughput Analysis of B-networks," *IEEE Transactions on Computers*, Vol. 47, No.4, pp. 482-485, Apr. 1998.
121. F.C.M. Lau, "Comments on 'Overview of Cellular CDMA'," *IEEE Transactions on Vehicular Technology*, Vol. 47, No.1, pp.369-371, Feb. 1998.
122. F.C.M. Lau, "Waveform relaxation analysis of lossy coupled transmission line sets in cascade," *IEE Proceedings-Circuits, Devices and Systems*, Vol.142, No.6, pp.373-378, Dec. 1995.
123. F.C.M. Lau and E.M. Deeley, "Improvements in the waveform relaxation method applied to transmission lines," *IEEE Transactions on Microwave Theory and Techniques*, Vol. 43, pp. 1201-1203, May 1995.
124. F.C.M. Lau and E.M. Deeley, "Transient analysis of lossy coupled transmission lines in a lossy medium using the waveform relaxation method," *IEEE Transactions on Microwave Theory and Techniques*, Vol. 43, pp. 692-697, Mar. 1995.
125. F.C.M. Lau and E.M. Deeley, "Waveform relaxation analysis of cascaded transmission lines," *International Journal of Electronics*, Vol. 76, pp. 483-495, Mar. 1994.

Conference papers

1. F.C.M. Lau, Fanlu Mo, Wai M. Tam and Chiu-Wing Sham, "Random-Permutation-Matrix-Based Cyclically-Coupled LDPC Codes," *Proceedings, International Conference on Advanced Communication Technology (ICACT 2017)*, Feb. 2017, Pyeongchang, Korea.
2. Ting-wai Siu, Chiu-Wing Sham and F.C.M. Lau, "Operating Frequency Improvement on FPGA Implementation of a Pipeline Large-FFT Processor," *Proceedings, International Conference on Advanced Communication Technology (ICACT 2017)*, Feb. 2017, Pyeongchang, Korea.
3. F.C.M. Lau, F. Mo, Q. Lu, W.M. Tam, and C.W. Sham, "Novel Types of Cyclically-Coupled Quasi-Cyclic LDPC Block Codes," *Proceedings, 2015 International Conference on Advanced Technologies for Communications (ATC 2016)*, October 2016, Hanoi, Vietnam.
4. Xingtang Wu, Chi K. Tse, Hairong Dong, Ivan W. H. Ho and F.C.M. Lau, "A Network Analysis of World's Metro Systems," *Proceedings, International Symposium on Nonlinear Theory and Applications (NOLTA'2016)*, November 2016, Yugawara, Japan.
5. Yuli Zhao, F.C.M. Lau, Zhiliang Zhu and Hai Yu, "Robust Scale-free Luby Transform Code and Its Performance," *Proceedings, International Symposium on Nonlinear Theory and Applications (NOLTA'2016)*, November 2016, Yugawara, Japan.
6. Q. Lu, C.W. Sham and F.C.M. Lau, "On Using the Cyclically-Coupled QC-LDPC Codes in Future SSDs", *Proceedings of IEEE Asia Pacific Conference on Circuits and Systems*, October 2016, Jeju Island, Korea.
7. Q. Lu, C.W. Sham, and F.C.M. Lau, "Rapid Prototyping of Multi-Mode QC-LDPC Decoder for 802.11n/ac Standard," *The 21st Asia and South Pacific Design Automation Conference - University Design Contest (ASP-DAC UDC 2016)*, January 2016, Macau, China.
8. Q. Lu, Bruce C.W. Sham, and F.C.M. Lau, "An Architecture-Algorithm Co-Design of Artificial Intelligence for Trax Player," *International Conference on Field-Programmable Technology*, pp. 268-271, December 2015, Queenstown, New Zealand. (3rd place in the Design Competition)

9. Q. Lu, Z. Shen, C.W. Sham, and F.C.M. Lau, "A Parallel-Routing Network for Reliability Inferences of Single-Parity-Check Decoder," *Proceedings, 2015 International Conference on Advanced Technologies for Communications (ATC 2015)*, October 2015, Hochiminh City, Vietnam. (Received Best Paper Award)
10. Ling Fu Xie, Ivan Wang-Hei Ho, Soung Chang Liew, Lu Lu, and F.C.M. Lau, "Mitigating Doppler Effects on Physical-layer Network Coding in VANET," *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2015)*, August 2015, Hong Kong, China.
11. Kehao Wang, F.C.M. Lau, Lin Chen and Robert Schober, "A Distributed Market Framework for Mobile Data Offloading," *IEEE International Conference on Communications (ICC)*, June 2015, London, UK, pp. 4666-4671.
12. L.F. Xie, Ivan W.H. Ho, S. Zhang, F.C.M. Lau and P.H.J. Chong, "Toward Software-Defined Vehicular Ad-Hoc Networks (SDVN)," 14th ITS Asia Pacific Forum, April 2015, Nanjing, China.
13. Q. Lu, J. Fan, C.W. Sham and F.C.M. Lau, "A High Throughput Gaussian Noise Generator," *Proceedings of IEEE Asia Pacific Conference on Circuits and Systems*, pp. 117-120, November 2014, Ishigaki, Japan.
14. Y. He, G. Sun, J. Yang and F.C.M. Lau, "D-GLDPC Codes with 3-D Single Parity-Check Product Codes as Super Check Nodes," *Proceedings, International Conference on Wireless Communications and Signal Processing*, pp. 1-6, Oct. 2014, Hefei, China.
15. Y. Zhao, F.C.M. Lau, Z. Zhu, Hai Yu and W. Zhang, "Generation of Luby Transform Codes with Low Redundancy," *Proceedings, International Workshop on Chaos-Fractals Theory and Applications (IWCF TA 2014)*, pp. 11-12, October 2014, Qingdao, China.
16. J. Wu, C.K. Tse and F.C.M. Lau, "Optimizing Performance of Communication Networks: An Application of Network Science," *Proceedings, International Symposium on Nonlinear Theory and Applications (NOLTA'2014)*, pp. 264-7, September 2014, Luzern, Switzerland.
17. Jiaping Wu, Chi K. Tse, F.C.M. Lau, "Effective Routing Algorithms Based on Node Usage Probability from a Complex Network Perspective," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'14)*, June 2014, Melbourne, Australia.
18. Zeeshan Sattar, Yunxiang Jiang and F.C.M. Lau, "Relay Cooperation Schemes for the Multiple Access Relay Channel: Compute-and-Forward and Successive Interference Cancellation," *Proceedings, IEEE Wireless Communications and Networking Conference (WCNC'14)*, April 2014, Istanbul, Turkey, pp. 1093-1098.
19. Yue Min, F.C.M. Lau and Chi K. Tse, "Exact Split Information Function for SPC," *Proceedings, The 16th International Conference on Advanced Communication Technology (ICACT 2014)*, Feb. 2014, Pyeongchang, Korea, pp. 1208-1212.
20. Yue Min, F.C.M. Lau and Chi K. Tse, "A Class of Doubly-Generalized LDPC Codes," *Proceedings, 2013 International Conference on Advanced Technologies for Communications (ATC 2013)*, October 2013, Hochiminh City, Vietnam, pp. 280-284.
21. T. Krebesz, G. Kolumban, C.K. Tse and F.C.M. Lau, "Turn your baseband Matlab simulator into a fully functional, 2.4-GHz, operating FM-DCSK transceiver using SDE platform," *Proceedings, European Conference on Circuit Theory and Design (ECCTD 2013)*, Sept. 2013, Dresden, Germany.
22. T. Krebesz, G. Kolumban, F.C.M. Lau and C.K. Tse, "Application of universal software defined PXI platform for the performance evaluation of FM-DCSK communications system," *Proceedings, European Conference*

- on *Circuit Theory and Design (ECCTD 2013)*, Sept. 2013, Dresden, Germany.
23. T. Krebesz, G. Kolumban, F.C.M. Lau and C.K. Tse, "From simulations to field tests: PXI-based software defined wireless platform for performance evaluation of FM-DCSK," *Proceedings, IEEE 56th International Midwest Symposium on Circuits and Systems (MWSCAS 2013)*, August 2013, Columbus, USA.
 24. J. Wu, C.K. Tse, F.C.M. Lau and I.W.H. Ho, "An Adaptive Routing Algorithm for Load Balancing in Communication Networks," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'13)*, Paper ID 2513, Beijing, China, May 2013.
 25. Yunxiang Jiang, F.C.M. Lau, Zeeshan Sattar, and Qing F. Zhou, "Selection of Spatially-distributed Relays for Two-way Relaying with Network Coding," *Proceedings, IEEE Wireless Communications and Networking Conference (WCNC'13)*, April 2013, Shanghai, China, pp. 2966-2970.
 26. Xuhua Shen and F.C.M. Lau, "Q-ary LDPC Decoders with Reduced Complexity," *Proceedings, The 15th International Conference on Advanced Communication Technology (ICACT 2013)*, Jan. 2013, Pyeongchang, Korea. (Received Outstanding Paper Award)
 27. Xu Chen, Ting-wai Siu, Qing F. Zhou and Francis C. M. Lau, "A Class of Selection Criteria Achieving Full Diversity in Amplify-and-Forward Opportunistic Relaying," *Proceedings, The 15th International Conference on Advanced Communication Technology (ICACT 2013)*, Jan. 2013, Pyeongchang, Korea. (Received Outstanding Paper Award)
 28. C.W. Sham, X. Chen, F.C.M. Lau, Y. Zhao, and W.M. Tam, "A Layered QC-LDPC Decoder Architecture for High Speed Communication System," *Proceedings, 2012 IEEE Asia Pacific Conference on Circuits and Systems (2012 APCCAS)*, Dec. 2012, Kaohsiung, Taiwan.
 29. T. Krebesz, G. Kolumban, C.K. Tse and F.C.M. Lau, "Implementation of FM-DCSK Modulation Scheme on USRP Platform Based on Complex Envelope," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2012)*, Oct. 2012, Majorca, Spain, pp. 797-800.
 30. G. Kolumban, T. Krebesz, F.C.M. Lau and C.K. Tse, "Performance Comparison of UWB Chirp IR TR and UWB FM-DCSK TR Systems Implemented with Autocorrelation Receiver," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2012)*, Oct. 2012, Majorca, Spain, pp. 793-796.
 31. Y. Sun, Y. Zhao, C.K. Tse and F.C.M. Lau, "Analysis of the Topological Characteristics of a Protein-Protein Interaction Network," *Proceedings, International Workshop on Chaos-Fractals Theory and Applications (IWCFTA'2012)*, pp. 127-30, October 2012, Dalian, China.
 32. J. Wu, C.K. Tse, F.C.M. Lau and I.W.H. Ho, "Concept of Node Usage Probability for Analysis and Design of Communication Networks," *Proceedings, International Workshop on Chaos-Fractals Theory and Applications (IWCFTA 2012)*, October 2012, Dalian, China.
 33. Yue Min, Francis C.M. Lau and Chi K. Tse, "Generalized LDPC Code With Single-Parity-Check Product Constraints At Super Check Nodes," *Proceedings, 7th International Symposium on Turbo Codes & Iterative Information Processing (ISTC)*, August 2012, Gothenburg, Sweden, pp. 165-169.
 34. Chi H. Chan and Francis C.M. Lau, "Parallel Decoding of LDPC Convolutional Codes Using OpenMP and GPU," *Proceedings, 17th IEEE Symposium on Computers and Communications*, July 2012, Cappadocia, Turkey.

35. Francis C.M. Lau and W.M. Tam, "A Fast Searching Method for the Construction of QC-LDPC Codes with Large Girth," *Proceedings, 17th IEEE Symposium on Computers and Communications*, July 2012, Cappadocia, Turkey.
36. Jiajing Wu, Chi K. Tse, Francis C.M. Lau and Ivan W.H. Ho, "Complex Network Approach to Communication Network Performance Analysis," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'12)*, May 2012, Seoul, Korea.
37. Yongxiang Xia, Chi K. Tse and Francis C.M. Lau, "Effect of Assortativity on Traffic Performance in Scale-free Networks," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'12)*, May 2012, Seoul, Korea.
38. T. Krebesz, G. Kolumban, C.K. Tse and F.C.M. Lau, "Improving the coverage of ultra wideband impulse radio by pulse compression," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'12)*, May 2012, Seoul, Korea.
39. Chi H. Chan and Francis C.M. Lau, "Simulation of LDPC Convolutional Decoders with CPU and GPU," *Proceedings, The International Conference on Consumer Electronics, Communications and Networks*, April 2012, Three Gorges, China, pp. 2854-2857.
40. F.C.M. Lau and L. Shi, "Programming Graphics Processing Units for the Decoding of Low-Density Parity-Check Codes," *Proceedings, The 14th International Conference on Advanced Communication Technology (ICACT 2012)*, Feb. 2012, Pyeongchang, Korea. (Received Outstanding Paper Award)
41. Francis C.M. Lau, Chi K. Tse and Zhiliang Zhu, "Future Design of Channel Codes: A Complex Network Perspective," *Proceedings, The Fourth International Workshop on Chaos-Fractal Theories and Applications (IWCFTA 2011)*, Oct. 2011, Hangzhou, China.
42. Yue Zhao, Xu Chen, Chiu Wing Sham, Wai M. Tam and Francis C.M. Lau, "Efficient Decoding of QC-LDPC Codes Using GPUs," *Proceedings, 11th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP 2011)*, Oct. 2011, Melbourne, Australia (also appeared in *Lecture Notes in Computer Science*, 2011, Volume 7016/2011, pp. 294-305, Springer-Verlag).
43. Zhiliang Zhu, Yuli Zhao, Francis C.M. Lau and Hai Yu, "Scale-free LT Code and Its Application on BEC Channels," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2011)*, September 2011, Kobe, Japan.
44. Xu Chen and F.C.M. Lau, "Construction of High-Rate QC-LDPC Codes," *Proceedings, 2011 International Conference on Advanced Technologies for Communications (ATC 2011)*, August 2011, Da Nang City, Vietnam. (Received the Best Paper Award)
45. S.F. Yau, T.L. Wong and F.C.M. Lau, "Extremely Fast Simulator for Decoding LDPC Codes," *Proceedings, The 13th International Conference on Advanced Communication Technology (ICACT 2011)*, Feb. 2011, Pyeongchang, Korea.
46. Yuli Zhao, Zhiliang Zhu, Francis C.M. Lau and Hai Yu, "Scale-free LT Code and Its Application on BEC Channels," *Proceedings, 6th Chinese Conference on Complex Networks*, October 2010, Suzhou, China.
47. Dian-Wu Yue, Qian Wang and Francis C.M. Lau, "Spectrum Sensing Gain Analysis in Cooperative Cognitive Radio Networks," *Proceedings, 6th International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM2010)*, September 2010, Chengdu, China.
48. Weikai Xu, Lin Wang and Francis C.M. Lau, "Multiple-Stream Code-Multiplexed Transmitted-Reference Ultra-Wideband Systems,"

- Proceedings, 6th International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM2010)*, September 2010, Chengu, China.
49. Yi Fang, Jianwen Zhang, Lin Wang and Francis C.M. Lau, "BP-Maxwell Decoding Algorithm for LDPC Codes over AWGN Channels," *Proceedings, 6th International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM2010)*, September 2010, Chengu, China.
 50. T. Krebesz, G. Kolumban, C.K. Tse and F.C.M. Lau, "FCC-Compliant Operation of Low-Rate UWB Impulse Radio Applying Multiple Pulses Per Bit," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2010)*, September 2010, Krakow, Poland.
 51. G. Kolumban, T. Krebesz, F.C.M. Lau and C.K. Tse, "Radio Coverage Extension of the FCC-Compliant Low-Rate UWB Networking Devices," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2010)*, September 2010, Krakow, Poland.
 52. D. Y. Hu, M. Z. Wang, F.C.M. Lau and Q.C. Peng, "On the Design of Low Complexity Decoding (LCD) Network Codes," *Proceedings, IEEE International Conference on Wireless Communications, Networking and Information Security (WCNIS2010)*, June 2010, Beijing, China.
 53. G. Kolumban, T. Krebesz and F.C.M. Lau, "Feasibility of UWB Radio: Impulse Radio Versus Chaos-Based Approach," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'10)*, May 2010, Paris, France.
 54. G. Kolumban, T. Krebesz, C.K. Tse and F.C.M. Lau, "Derivation of Circuit Specification for the UWB Impulse Radio Transceivers," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'10)*, May 2010, Paris, France.
 55. T. Krebesz, G. Kolumban, C.K. Tse and F.C.M. Lau, "Performance Improvement of Autocorrelation Detector Used in UWB Impulse Radio," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'10)*, May 2010, Paris, France.
 56. T. Krebesz, G. Kolumban, C.K. Tse and F.C.M. Lau, "Gated Threshold Compensated Noncoherent PPM Receiver for UWB Impulse Radio," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'10)*, May 2010, Paris, France.
 57. X. Zheng, F.C.M. Lau and C.K. Tse, "Constructing high-rate scale-free LDPC codes," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'10)*, May 2010, Paris, France.
 58. Abraham O. Fapojuwo, C.K. Tse and F.C.M. Lau, "Energy Consumption in Wireless Sensor Networks under Varying Sensor Node Traffic," *Proceedings, IEEE Wireless Communications and Networking Conference (WCNC'10)*, April 2010, Sydney, Australia.
 59. S.M. Wong, F.C.M. Lau and Esmond C.M. Mok, "Interference Impacts of Ultra Wideband Device on Satellite Receiving Station," *Proceedings, The 12th International Conference on Advanced Communication Technology (ICACT 2010)*, Feb 2010, Pyeongchang, Korea.
 60. T. Krebesz, G. Kolumban, F.C.M. Lau and C.K. Tse, "Performance Improvement of UWB Autocorrelation Receivers by Minimizing the Energy Capture Time," *Proceedings, IEEE International Conference on Electronics, Circuits and Systems*, December 2009, Hammamet, Tunisia.
 61. X. Zheng, F.C.M. Lau and C.K. Tse, "Differentiating Trapping Sets with the Same Label [w;u]," *Proceedings, International Conferences on Information, Communications and Signal Processing (ICICS2009)*, Dec. 2009, Macau.
 62. D. Y. Hu, M. Z. Wang, F.C.M. Lau and Q.C. Peng, "Network Coding for Resilient Peer-to-Peer Networks," *Proceedings, International Workshop on*

- the Design of Reliable Communication Networks (DRCN2009)*, October 2009, Washington D.C., USA.
63. X. Zheng, F.C.M. Lau, Y. He and C.K. Tse, "Constrained Scale-Free LDPC Codes," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2009)*, October 2009, Sapporo, Japan, pp. 2-5.
 64. X. Zheng, F.C.M. Lau and C.K. Tse, "Constrained Scale-Free LDPC Codes," *Proceedings, International Workshop on Nonlinear Theoretic Approach to Ambient Network*, October 2009, Sapporo, Japan, pp. 35-36. (Invited talk)
 65. Y. He, T. Jiang and F.C.M. Lau, "Simulation and implementation of a single-polarization smart antenna for TD-SCDMA system," *Proceedings, Global Mobile Congress (GMC2009)*, October 2009, Shanghai, China.
 66. Y. He, X. Hou, J. Huang and F.C.M. Lau, "Simulation and Implementation of Dual-Polarization TD-SCDMA Smart Antennas," *Proceedings, Asia-Pacific Conference on Communications (APCC2009)*, October 2009, Shanghai, China.
 67. D. Y. Hu, M. Z. Wang, F.C.M. Lau and Q.C. Peng, "A Precoding Scheme with Generation Crossing for Network Coding," *Proceedings, Asia-Pacific Conference on Communications (APCC2009)*, October 2009, Shanghai, China.
 68. G. Kolumban, T. Krebesz, C.K. Tse and F.C.M. Lau, "Improving the Noise Performance of Energy Detector Based UWB Systems by Optimizing the Receiver Parameters," *Proceedings, International Symposium on Communications and Information Technologies*, September 2009, Incheon, Korea.
 69. Xuhua Shen and F.C.M. Lau, "Accelerated Q-ary Low-Density Parity-Check Codes Decoding with Message Selection," *Proceedings, 5th International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM2009)*, September 2009, Beijing, China.
 70. X. Zheng, F.C.M. Lau, C.K. Tse, Yejun He and M.Z. Wang, "Evaluation of the Extremely Low Block Error Rate of Irregular LDPC Codes," *Proceedings, IEEE International Conference on Communications (ICC 2009)*, June 2009, Dresden, Germany.
 71. W.M. Tam, F.C.M. Lau and C.K. Tse, "Modeling Telephone Call Networks with Group Structure from a Complex Network Perspective," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'09)*, Taipei, Taiwan, May 2009.
 72. C.K. Tse, J. Liu, F.C.M. Lau and K. He, "Observing Stock Market Fluctuation in Networks of Stocks," *Proceedings, International Conference on Complex Sciences: Theory and Applications (COMPLEX'2009)*, February 2009, Shanghai, China.
 73. W.M. Tam, F.C.M. Lau and C.K. Tse, "Traffic Analysis of a Mobile Cellular System Based on a Scale-Free User Network and a Power-Law-Distributed Mobility Model," *Proceedings, IEEE Asia Pacific Conference on Circuits and Systems*, Nov.-Dec. 2008, Macao, China, pp. 1120-1123.
 74. X. Zheng, F.C.M. Lau, C.K. Tse and Y. He, "Construction of Short-Length LDPC Codes with Low Error Floor," *Proceedings, IEEE Asia Pacific Conference on Circuits and Systems*, Nov.-Dec. 2008, Macao, China, pp. 1818-1821.
 75. C.K. Tse, J. Liu, F.C.M. Lau and K. He, "Correlation-Based Complex Networks of Stock Market and Their Applications in Predicting Market Fluctuation," *Proceedings, The Fourth Chinese Conference on Complex Networks*, October 2008, Beijing, China.
 76. G. Kolumban, T. Krebesz, F.C.M. Lau and C.K. Tse, "A Mathematical Approach to Derive Optimum Detector Configurations for UWB Radio Applications," *Proceedings, International Symposium on Nonlinear Theory*

- and Its Applications (NOLTA'2008), September 2008, Budapest, Hungary, pp. 716-719.
77. W.M. Tam, F.C.M. Lau and C.K. Tse, "Construction of Scale-Free Networks with Adjustable Clustering," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2008)*, September 2008, Budapest, Hungary, pp. 257-260.
 78. X. Zheng, F.C.M. Lau and C.K. Tse, "Short-length LDPC Codes with Power-law Distributed Variable-node Degrees," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2008)*, September 2008, Budapest, Hungary, pp. 168-171.
 79. C.K. Tse, J. Liu and F.C.M. Lau, "Winner-Take-All Correlation-Based Complex Networks for Modeling Stock Market and Degree-Based Indexes," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2008)*, September 2008, Budapest, Hungary, pp. 245-248.
 80. C.T. Cheng, C.K. Tse and F.C.M. Lau, "An Efficient Data Collecting Network Structure in Wireless Sensor Networks," *Proceedings, International Conference on Communications, Circuits and Systems, (ICCCAS2008)*, May 2008, Xiamen, China, pp. 497-500. (Received Best Paper Award)
 81. C.T. Cheng, C.K. Tse and F.C.M. Lau, "A Bio-Inspired Scheduling Scheme for Wireless Sensor Networks," *Proceedings, Vehicular Technology Conference, (VTC2008-Spring)*, May 2008, pp. 223-226, Singapore.
 82. S.M. Wong and F.C.M. Lau, "Impacts of UWB Interference on Selected Radio Systems Used by the Government", *Proceedings, IEEE International Conference on Circuits & Systems for Communications*, Shanghai, China, May 2008. (CD version)
 83. Esmond Mok, Tian Hui, F.C.M. Lau and Linyuan Xia, "Positioning Performance of Ultra-wide Band and ZigBee Technologies," *Proceedings, International Global Navigation Satellite Systems Symposium*, December 2007, Sydney, Australia. (CD version)
 84. S.M. Wong and F.C.M. Lau, "Passband simulation of interference impacts in the presence of ultra wideband and narrowband systems", *Proceedings, The 10th International Conference on Advanced Communication Technology (ICTACT 2008)*, Pyeongchang, Korea, Feb 2008, pp. 569-574.
 85. X. Zheng, F.C.M. Lau and C.K. Tse, "Construction of Short-Length LDPC Codes with Low Error Floor," *Proceedings, 14th China Symposium on Information Theory 2007 (CSIT'2007)*, December 2007, Guangzhou, China, pp. 635-638.
 86. Qing F. Zhou and F.C.M. Lau, "Novel Incremental Relaying Protocols for Cooperative Networks," *Proceedings, 14th China Symposium on Information Theory 2007 (CSIT'2007)*, December 2007, Guangzhou, China, pp. 257-260.
 87. C.T. Cheng, C.K. Tse and F.C.M. Lau, "A Bio-Inspired Algorithm for Performance Optimization in Wireless Sensor Networks," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2007)*, September 2007, Vancouver, Canada.
 88. F.C.M. Lau, W.M. Tam and C.K. Tse, "Application of Complex Network Theory to the Construction of Telephone Call Network," *Proceedings, Fourth Asia-Pacific Workshop on Chaos Control and Synchronization*, Harbin, China, August 2007, p. 50.
 89. W.M. Tam, F.C.M. Lau and C.K. Tse, "Modeling the Telephone Call Network," *Proceedings, International Workshop on Complex Systems and Networks 2007 (IWCSN'2007)*, July 2007, Guilin, China, pp. 20-21.
 90. F.C.M. Lau, X. Zheng, C.K. Tse and S.C. Wong, "Constructing Error-Correction Codes from Scale-Free Networks," *Proceedings, International*

- Workshop on Complex Systems and Networks 2007 (IWCSN'2007)*, July 2007, Guilin, China. (Invited paper)
91. X. Zheng, F.C.M. Lau and C.K. Tse, "Error Performance of Short-Block-Length LDPC Code Built on Scale-Free Networks," *Proceedings, The Third Shanghai International Symposium on Nonlinear Sciences and Applications*, Shanghai, China, June 2007, pp. 55-57.
 92. Chi-Tsun Cheng, C.K. Tse and F.C.M. Lau, "A Clustering Algorithm for Sensor Networks Based on Bee Colony Structure," *Proceedings, The Third Shanghai International Symposium on Nonlinear Sciences and Applications*, Shanghai, China, June 2007, pp. 47-49.
 93. W.M. Tam, F.C.M. Lau and C.K. Tse, "Modeling the Telephone Call Network," *Proceedings, 20th Symposium on Circuits and Systems (CSCAS'2007)*, June 2007, Guangzhou, China.
 94. C.T. Cheng, C.K. Tse and F.C.M. Lau, "A Bio-Inspired Clustering Algorithm for Wireless Sensor Networks," *Proceedings, 20th Symposium on Circuits and Systems (CSCAS'2007)*, June 2007, Guangzhou, China.
 95. W.M. Tam, F.C.M. Lau and C.K. Tse, "Modeling the Telephone Call Network," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'07)*, New Orleans, USA, May 2007, pp. 453-456.
 96. Qing F. Zhou and F.C.M. Lau, "Analytical Performance of M -ary TH-PPM UWB Systems with Multiple Users," *Proceedings, IEEE Wireless Communications and Networking Conference (WCNC'07)*, Hong Kong, March 2007.
 97. Y. Xia, C.K. Tse and F.C.M. Lau, "Packet Traffic Analysis in a Complex Network with Multiple Power-Law Properties," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'06)*, Bologna, Italy, September 2006, pp. 551-554.
 98. X. Zheng, F.C.M. Lau and Chi K. Tse, "Study of LDPC Codes Built on Scale-Free Networks," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'06)*, Bologna, Italy, September 2006, pp. 563-566.
 99. Y. Xia, C.K. Tse, F.C.M. Lau, W.M. Tam, Xiuming Shan, "Traffic Congestion Analysis in Complex Networks," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'06)*, Kos, Greece, May 2006, pp. 2625-2628.
 100. X. Zheng, F.C.M. Lau, C.K. Tse and S.C. Wong, "Techniques for Improving Block Error Rate of LDPC Decoders," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'06)*, Kos, Greece, May 2006, pp. 2261-2264.
 101. S.M. Wong, F.C.M. Lau and C.K. Tse, "Propagation Characteristics of UWB Radio in a High-Rise Apartment," *Proceedings, International Conference on Advanced Communication Technology (ICACT'06)*, Kangwon, Korea, February 2006. (CD version)
 102. S.C. Wong, C.K. Tse and F.C.M. Lau, "Dynamics of oscillatory queue length in TCP-RED gateway," *Proceedings, International Symposium on Intelligent Signal Processing and Communications Systems (ISPACS'05)* Hong Kong, December 2005, pp. 617-620.
 103. F.C.M. Lau and C.K. Tse, "Research on Ultra-Wideband Communication Systems: Challenges and Prospects," *Proceedings, Conference on UWB Wireless Communications Technology*, Nanjing, China, November 2005, pp. 358-362.
 104. S.M. Wong F.C.M. Lau and C.K. Tse, "Ultra-Wideband Channel Characterization," *Proceedings, Conference on UWB Wireless Communications Technology*, Nanjing, China, November 2005, pp. 210-215.

105. S.C. Wong, C.K. Tse and F.C.M. Lau, "Characteristic oscillation and intermittency in TCP-RED gateway," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'05)*, Bruges, Belgium, October 2005, pp. 90-93.
106. Y. Xia, C.K. Tse, F.C.M. Lau, W.M. Tam and M. Small, "Telephone traffic analysis based on a scale-free user network," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'05)*, Bruges, Belgium, October 2005, pp. 110-113.
107. W.M. Tam, F.C.M. Lau, Y. Xia, C.K. Tse and M. Small, "Traffic Analysis of a Mobile Communication System Based on a Scale-Free User Network," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'05)*, Bruges, Belgium, October 2005, pp. 130-133.
108. Xia Zheng, F.C.M. Lau, Chi K. Tse and S.C. Wong, "Study of Nonlinear Dynamics of LDPC Decoders," *Proceedings, European Conference on Circuit Theory and Design (ECCTD '2005)*, Cork, Ireland, August 2005, paper 207. (CD version)
109. M.H.F. Leung and F.C.M. Lau, "Testing System for Measuring and Calibrating the Transmission Power of EDGE Mobiles," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'05)*, Kobe, Japan, May 2005, pp. 4493-4496.
110. R. Xu and F.C.M. Lau, "Performance Analysis For MIMO Systems Using Zero Forcing Detector Over Rice Fading Channel," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'05)*, Kobe, Japan, May 2005, pp. 4955-4958.
111. R. Xu and F.C.M. Lau, "Degradation on the Performance of MIMO System Under a Correlated Sub-Channels Condition," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'05)*, Kobe, Japan, May 2005, pp. 4967-4970.
112. R. Xu and F.C.M. Lau, "Analytical Approach of V-BLAST Performance with Two Transmit Antennas," *Proceedings, IEEE Wireless Communications & Networking Conference*, New Orleans, USA, Mar. 2005. (CD version)
113. Y. Xia, C.K. Tse and F.C.M. Lau, "Analysis of Performance of Noncoherent DCSK Communication Systems Over a Multipath Rayleigh Fading Channel with Delay Spread," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2004)*, Fukuoka, Japan, Nov.-Dec. 2004, pp. 681-684.
114. Y. Xia, C.K. Tse, F.C.M. Lau and G. Kolumban, "Performance of FM-DCSK Communication System Over a Multipath Fading Channel with Delay Spread," *Proceedings, International Symposium on Nonlinear Theory and Its Applications (NOLTA'2004)*, Fukuoka, Japan, November-December 2004, pp. 685-688.
115. M.H.F. Leung and F.C.M. Lau, "Testing Equipment Implementation for Evaluating WCDMA UE-to-UE Real-time Video Transmission," *Proceedings, The 9th CDMA International Conference (CIC2004)*, Seoul, Korea, Oct. 2004. (CD version)
116. M.H.F. Leung and F.C.M. Lau, "A Comprehensive Tester For WCDMA User Equipment," *Proceedings, The 9th CDMA International Conference (CIC2004)*, Seoul, Korea, Oct. 2004. (CD version)
117. W.M. Tam, F.C.M. Lau and C.K. Tse, "Multiple access scheme for noncoherent chaos-based communication systems," *Proceedings, Third Asia-Pacific Workshop on Chaos Control and Synchronization*, Melbourne, Australia, July 2004, p. 14.
118. W.M. Tam, F.C.M. Lau and C.K. Tse, "An improved multiple access scheme for chaos-based digital communications using adaptive

- receivers," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'04)*, Vancouver, Canada, May 2004, pp. 605-608.
119. W.M. Tam, F.C.M. Lau and C.K. Tse, "Generalized correlation-delay-shift-keying scheme for noncoherent chaos-based communication systems," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'04)*, Vancouver, Canada, May 2004, pp. 601-604.
120. G. Kolumban, G. Kis, F.C.M. Lau and C.K. Tse, "Optimum noncoherent FM-DCSK detector: Application of chaotic GML decision rule," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS'04)*, Vancouver, Canada, May 2004, pp. 597-600.
121. Y. Xia, C.K. Tse and F.C.M. Lau, "Some benchmark multipath performance data of coherent chaos-shift-keying digital communication systems," *Proceedings, International Workshop on Nonlinear Circuits and Signal Processing (NCSP'2004)*, March 2004, Waikiki, Hawaii, pp. 261-264.
122. M.H.F. Leung and F.C.M. Lau, "A new technique for testing GPRS mobiles," *Proceedings, The 6th International Conference on Advanced Communication Technology (ICACT'04)*, Pyeongchang, Korea, Feb. 2004. (CD version)
123. M.H.F. Leung and F.C.M. Lau, "An inter-band handover technique for testing tri-band GSM mobiles efficiently," *Proceedings, The 6th International Conference on Advanced Communication Technology (ICACT'04)*, Pyeongchang, Korea, Feb. 2004. (CD version)
124. F.C.M. Lau, W.M. Tam and C.K. Tse, "Adaptive approach for detection in chaos-based digital communication systems with transmitted-reference," *Proceedings, Second Asia-Pacific Workshop in Chaos Control and Synchronization*, Nov. 2003, Shanghai, China, pp. 24-25.
125. M. Small, C.K. Tse and F.C.M. Lau, "Chaos communication using chaos," *Proceedings, Second Asia-Pacific Workshop in Chaos Control and Synchronization*, Nov. 2003, Shanghai, China, pp. 47-48.
126. G. Kolumban, F.C.M. Lau and M. Small, "A New Description of Chaotic Waveform Communications: The Fourier Analyzer Approach", *Proceedings, European Conference on Circuit Theory and Design (ECCTD '2003)*, September 2003, Kraków, Poland, Vol. III, pp. 241-244.
127. K.Y. Cheong, F.C.M. Lau and C.K. Tse, "An M -ary spread-spectrum communication system based on permuted chaotic sequences", *Proceedings, European Conference on Circuit Theory and Design (ECCTD '2003)*, September 2003, Kraków, Poland, Vol. III, pp. 237-240.
128. K.Y. Cheong, F.C.M. Lau and C.K. Tse, "An M -ary transmission scheme for chaotic communications," *Proceedings, Regional Inter-University Postgraduate Electrical and Electronic Engineering Conference (RIUPEEEEC '2003)*, August 2003, Hong Kong, China, pp. 149-150.
129. W.M. Tam, F.C.M. Lau and C.K. Tse, "A multiple access scheme for chaos-based digital communication systems utilizing transmitted reference and adaptive detection," *Proceedings, Regional Inter-University Postgraduate Electrical and Electronic Engineering Conference (RIUPEEEEC '2003)*, August 2003, Hong Kong, China, pp. 151-152.
130. C.K. Tse, Y.F. Zhou, F.C.M. Lau and S.S. Qiu, "Intermittent chaos in switching power supplies due to unintended coupling of mismatched frequency oscillators," *Proceedings, IEEE Power Electronics Specialists Conference 2003 (PESC '2003)*, Acapulco, Mexico, June 2003, pp. 642-647.
131. F.C.M. Lau and C.K. Tse, "Co-existence of chaos-based and conventional digital communication systems," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS '2003)*, May 2003, Bangkok, Thailand, Vol. III, pp. 204-207.

132. C.K. Tse, Yufei Zhou, F.C.M. Lau and S.S. Qiu, ““Intermittent” chaos and subharmonics in switching power supplies,” *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS '2003)*, May 2003, Bangkok, Thailand, Vol. III, pp. 332-335.
133. W.M. Tam, F.C.M. Lau and C.K. Tse, “Performance analysis of multiple access chaotic-sequence spread-spectrum communication systems employing parallel interference cancellation detectors,” *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS '2003)*, May 2003, Bangkok, Thailand, Vol. III, pp. 208-211.
134. W.M. Tam, F.C.M. Lau and C.K. Tse, “Performance analysis for multiple access CSK and DCSK communication systems,” *Proceedings, The 4th ACM Postgraduate Research Day 2003*, Hong Kong, January 2003, pp. 115-124.
135. F.C.M. Lau and C.K. Tse, “Overview of chaos-based digital communication systems,” *Proceedings, China Symposium on Nonlinear Circuits and Systems*, Shenzhen, China, November 2002, pp. 2-17. (Invited Paper)
136. F.C.M. Lau and C.K. Tse, "Study of anti-jamming capabilities of chaotic digital communication systems," *Proceedings, International Symposium on Nonlinear Theory and Its Applications*, (NOLTA'02), Xian, China, October 2002, pp. 65-68.
137. F.C.M. Lau, K.Y. Cheong and C.K. Tse, "A permutation-based multiple access DCSK system", *Proceedings, International Symposium on Nonlinear Theory and Its Applications*, (NOLTA'02), Xian, China, October 2002, pp. 511-514.
138. W.M. Tam, F.C.M. Lau and C.K. Tse, "Multi-user detection techniques for multiple access chaos-based digital communication systems," *Proceedings, International Symposium on Nonlinear Theory and Its Applications*, (NOLTA'02), Xian, China, October 2002, pp. 503-506.
139. Yufei Zhou, C.K. Tse, S.S. Qiu and F.C.M. Lau, “An improved resonant parametric perturbation for controlling and anti-controlling chaos in DC/DC converters,” *Proceedings, International Symposium on Nonlinear Theory and Its Applications*, (NOLTA'02), Xian, China, October 2002, pp. 151-154.
140. F.C.M. Lau and C.K. Tse, "Co-existence of chaos-based communication systems and conventional spread-spectrum communication systems," *Proceedings, International Symposium on Nonlinear Theory and Its Applications*, (NOLTA'02), Xian, China, October 2002, pp. 107-110.
141. F.C.M. Lau, C.K. Tse, W.M. Tam and S.F. Hau, “Optimum design for correlator-type receivers in chaos-based digital communication systems,” *Proceedings, 2001 International Symposium on Nonlinear Theory and its Applications*, Oct. 2001, Miyagi, Japan, pp.565-568.
142. W.M. Tam, F.C.M. Lau, C.K. Tse and S.F. Hau, “Analytical BERs of coherent CSK and noncoherent DCSK systems with multiple users,” *Proceedings, 2001 International Symposium on Nonlinear Theory and its Applications*, Oct. 2001, Miyagi, Japan, pp.553-556.
143. C.K. Tse, K.Y. Cheong, F.C.M. Lau and S.F. Hau, “An approach for CSK detection based on return maps,” *Proceedings, 2001 International Symposium on Nonlinear Theory and its Applications*, Oct. 2001, Miyagi, Japan, pp.637-640.
144. J. Feng, C.K. Tse and F.C.M. Lau, “Channel equalization for chaos-based communication systems,” *Proceedings, 2001 International Symposium on Nonlinear Theory and its Applications*, Oct. 2001, Miyagi, Japan, pp.641-644.

145. S.S. Hui and F.C.M. Lau, "Traffic regulating algorithms in a dualband mobile cellular system," *Proceedings, 2001 International Symposium on Signals, Systems and Electronics*, July 2001, Tokyo, Japan, pp.408-411.
146. R.H.M. Yuen and F.C.M. Lau, "DD-DFE receiver in CDMA systems over frequency selective fading channels," *Proceedings, 2001 International Symposium on Signals, Systems and Electronics*, July 2001, Tokyo, Japan, pp. 343-346.
147. F.C.M. Lau, C.K. Tse and W.M. Tam, "Optimum design for correlator-type receivers in chaos-based digital communication systems," *Proceedings, First Asia-Pacific Workshop in Chaos Control and Synchronization*, June 2001, Shanghai, China. (invited paper)
148. F.C.M. Lau, M.M. Yip, C.K. Tse and S.F. Hau, "A multiple access technique for differential chaos shift keying," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS '2001)*, 6-9 May 2001, Sydney, Australia, Vol. III, pp. 317-320.
149. J. Feng, C.K. Tse and F.C.M. Lau, "A chaos tracker applied to non-coherent detection in chaos-based digital communication systems," *Proceedings, IEEE International Symposium on Circuits and Systems (ISCAS '2001)*, 6-9 May 2001, Sydney, Australia, Vol. III, pp. 795-798.
150. V.Y.K. Lee and F.C.M. Lau, "A novel algorithm to prevent unnecessary handovers at street intersections in a microcellular system," *Proceedings, International Conference on Advanced Communication Technology (ICACT2001)*, 8-10 February 2001, Muju, Korea, pp. 195-200.
151. F.C.M. Lau and C.H. Lee, "Sensitivity of performance of SARP and HARP to traffic loading variations in a hierarchical cellular system under non-uniform traffic distribution," *Proceedings, IEEE VTC 2000 Fall*, 24-28 September 2000, Boston, USA. (CD version)
152. F.C.M. Lau and W.M. Tam, "Novel predictive power control in a CDMA mobile radio system," *Proceedings, IEEE VTC 2000 Spring*, 15-18 May 2000, Japan, pp. 1950-1954.
153. M.M. Yip and F.C.M. Lau, "Performance of TETRA under quasi-synchronous transmission over Rayleigh fading channels with equalization," *Proceedings, 4th IEEE Malaysia International Conference on Communications*, 17-19 November 1999, pp. 300-303.
154. F.C.M. Lau and K.N. Chan, "Comparison of handoff performance between GSM900 and GSM1800 mobile cellular system designs under an underground subway environment," *Proceedings, XXVI General Assembly of the International Union of Radio Science*, Toronto, Canada, 13-21 August 1999, p. 693.
155. F.C.M. Lau and W.M. Tam, "Effect of power control feedback decision threshold on the outage probability of a wideband CDMA mobile communication system under a multipath channel environment," *Proceedings, XXVI General Assembly of the International Union of Radio Science*, Toronto, Canada, 13-21 August 1999, p. 690.
156. F.C.M. Lau and J. Wong, "Overview of professional mobile radio," *Proceedings, HKIE ITD Professional Mobile Radio Forum 1998*, pp. 34-41, September 1998, Hong Kong.
157. W.M. Tam and F.C.M. Lau, "Forward link power control function for CDMA cellular systems," *Proceedings, IEEE Malaysia International Conference on Communications (MICC'97)*, 11-13 November, 1997, Kuala Lumpur, Malaysia, pp. S7.1.1-S7.1.4.
158. F.C.M. Lau and S. Yau, "Channel assignment strategies in a hot-spot cell," *Proceedings, GLOBECOM' 97*, 3-8 November, 1997, Phoenix, AZ USA, pp. 1640-1644.
159. W.M. Tam and F.C.M. Lau, "Capacity analysis of a CDMA cellular system with power control schemes," *Proceedings, 1997 IEEE 6th International*

- Conference on Universal Personal Communications (ICUPC'97)*, 12-16 October, 1997, San Diego, CA USA, pp. 608-612.
160. W.M. Tam and F.C.M. Lau, "Analysis of imperfect power control in CDMA cellular systems," *Proceedings, The 8th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'97)*, September 1-4, 1997, Helsinki, Finland, pp. 892-897.
 161. W.M. Tam, and F.C.M. Lau, "Capacity analysis and simulations of a CDMA cellular system with power control," *Proceedings, 2nd International Conference on Personal, Mobile and Spread Spectrum Communications*, 3-5 December 1996, Hong Kong, pp. 244-247.
 162. W.M. Tam, and F.C.M. Lau, "Effect of power control on the forward link capacity of a CDMA mobile cellular system," *Proceedings, IEEE Singapore International Conference on Communication Systems*, 25-29 November 1996, Singapore, pp. 1235-1238.
 163. F.C.M. Lau and M. Yip, "Speed improvement in the transient analysis of transmission lines," *Proceedings, IEEE Asia-Pacific Conference on Circuits and Systems'96*, 18-21 November 1996, Seoul, Korea, pp. 85-88.
 164. F.C.M. Lau and W.C. Poon, "Performance analysis of B-networks with buffers," *Proceedings, 1996 International Symposium on New Transmission & Switching Technologies(ISTST'96)*, 12-14 September 1996, Kuming, China, pp. 347-351.
 165. F.C.M. Lau, W.M. Tam, "Effects of increased capacity in CDMA cellular system," *Proceedings, International Symposium on Signals, Systems and Electronics*, San Francisco, Oct. 25-27, 1995, pp. 579-582.
 166. F.C.M. Lau, "Improvements in the waveform relaxation method applied to transmission lines with nonlinear terminations," *Proceedings, 1995 SBMO/IEEE MTT-S International Microwave and Optoelectronics Conference*, Rio de Janeiro, Brazil, July 24-27, 1995, Vol. 1, pp. 225-229.