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KEY QUALIFICATIONS:

- Research on photonics, including: integrated micro/nano optical devices, optical interconnects, fiber-optical devices and subsystems, optical sensors, and high-speed WDM optical communication systems and networks

EDUCATION:

- Ph.D. in Electrical Engineering, Univ. of Southern California, USA, 2005

  Dissertation: "Dispersive and Nonlinear Effects in High-Speed Reconfigurable WDM Optical Fiber Communication Systems" (Advisor: Dr. Alan E. Willner)

- Master of Science in Electrical & Computer Engineering, Univ. of Miami, USA, 1999

  Thesis: "Flat-Top and Non-Diffracting Beam Shaping Using Phase-Only Diffractive Optical Elements"

- Bachelor of Science in Applied Physics and Bachelor of Economics in Enterprise Management, Tsinghua Univ., China, 1997

  Thesis: "Excitons in Quantum Dot of II-VI Semiconductor"

PROFESSIONAL EXPERIENCE:

- Dept. of Electrical and Computer Engineering, National University of Singapore (**Founding Leader of Photonic System Research Group**, 12/2005-present)
- A*STAR Institute for Infocomm Research (**25% Joint Senior Scientist**, 12/2005-present)
- National University of Singapore Graduate School for Integrative Sciences and Engineering (**Ph.D. Supervisor**, 07/2011-present)
- NEC Labs America (**Visiting Researcher**, 9/2005-12/2005)
- Optical Communications Lab, Dept. of Electrical Engineering, University of Southern California (**Research and Teaching Assistant**, 8/2000-8/2005)
- Electro-Optics & Micro-Devices Lab, Dept. of Electrical & Computer Engineering, University of Miami (**Research and Teaching Assistant**, 8/1997-5/2000)

RECENT RESEARCH PROJECTS (2006-present, with fund over 5 million SGD; 1 SGD= 0.8 USD)

- The cross-layer optical performance monitoring based on radio frequency spectrum analysis and two-dimension phase portrait recognition as well as control plane coordination (PI, National Natural Science Foundation of China 61471253, 01/2015~12/2018)

- **Carrier recovery based on DSP in Tbit/s coherent optical OFDM systems (PI, MOE AcRF Tier 2 MOE2013-T2-2-145, 05/2014~04/2017)**

- Hybrid digital- and radio-over-fiber network for urban infrastructure (PI, MOE AcRF R -263-000-A43-112, 03/2013~02/2016)
- Application of photonic integrated circuits in optical communication networks (PI, NUSRI R-2012-N-009, 01/2012~12/2014)
- OPM for smart optical networks based on RF analysis with optical filtering (PI, MOE AcRF R-263-000-631-112, 03/2011~02/2014)
- General research on fiber optics and optical communications (PI, Gift Donation from NEC Labs America R-263-000-565-720, 11/2009~03/2014)
- **The applications of digital signal processing in 100-Gbit/s coherent optical communication systems (PI, A*STAR SERC PSF 092 101 0054, 09/2009~08/2012)**
- Autocorrelator for optical pulses based on measurement of polarization effects (PI, MOE AcRF R-263-000-424-112, 03/2007~02/2010)
- Multi-channel wavelength-tunable short pulses generation in ultra high-speed optical systems (PI, MOE AcRF R-263-000-354-112/133, 03/2006~03/2009)
- Traffic Engineering and System Design for Hybrid Optical Data Center (co-PI, MOE AcRF Tier 2 MOE2013-T2-2-135, 05/2014~04/2017)
- Synthetic aperture radar on a nano-satellite swarm platform (Co-PI, MOE AcRF R-263-000-A51-112, 03/2013~02/2016)
- Investigations of decision-aided linear carrier phase estimation in ultra-high capacity wavelength division multiplexing optical coherent transmission systems (Co-PI, National Natural Science Foundation of China 61271239, 01/2013~12/2016)
- Microwave photonics in biomedical applications (Co-PI, International Program Development Fund of University of Sydney, 11/2012~10/2013)
- Visible light communications (Co-PI, A*STAR SERC HOME2015 092 115 0111, 03/2010~08/2012)
- Small-footprint semiconductor optical transmitter for RZ transmission systems (Co-PI, MOE AcRF R-263-000-500-112, 05/2008~04/2011)
- Fabrication and testing of fiber optic hydrophones and arrays (Collaborator, A*STAR EC-2007-20, 8/2007~1/2011)
- Distributed temperature and strain sensor (Collaborator, A*STAR CR-2006-22, 4/2006~3/2007)

PREVIOUS RESEARCH PROJECTS (1997-2005):

- High-special-efficiency DWDM optical fiber transmission systems (2005)
- Tunable delay line based on slow light in fiber (2004~2005)
- High speed all-optical logic gates, all-optical wavelength conversion and optical parametric amplification by fiber nonlinear effects (2002~2005)
- High speed short pulse train generation using phase modulator and PM fiber (2004~2005)
- Supercontinuum generation and multicasting in optical WDM networks (2004)

- Extending the transmission distance of directly modulated DFB laser system (2004)
- Monitoring and compensation of chromatic dispersion and polarization-mode dispersion (PMD) in WDM optical fiber transmission systems (2000~2003)
- Development of Labview-based beam profiler (1999~2000)
- Fabrication of holographic devices on ion-exchanged photo-chromic glass for optical interconnects and optical storage (1999~2000)
- High density nondiffracting beam array for optical interconnection (1997~1999)
- Fabrication of waveguide on HEBS glass by laser-writing assisted etching technique for chip-to-chip optical interconnects (1997~1999)
- Flat-top beam shaper fabricated by a non-lithographic technique (1997~1998)

TEACHING EXPERIENCE:

- Lecture:
  - EE6136 "Advanced Optical Communications" (2012~present)
  - EE4114 "Optical Communications" (2010~present)
  - EE3407 "Analog Electronics" (2007~present)
  - ESP1104 "Introduction to Electronic Systems" (2007~2009)
- Tutorial:
  - EE2009 "Signals" (2006~2009)
- Lab supervision:
  - EE2009 "Signals" (2006~2007)
  - EE3208 "Embedded Computer Systems Design" (2006)
- Research students supervised:
  - Currently supervising 8 Ph.D. students (ZHOU Jingjing, ZHENG Huanhuan, HU Qikai, DONG Bo, TAN Kang, DU Xinwei, HAO Chenglong, LI Yan), and some Master, FYP and visiting students
  - Graduated Ph.D. students (7):
    1. XU Zhuoran, "Maximum Likelihood Based Carrier Recovery for High Speed Coherent Optical Communication Systems," 08/2014
    2. YU Yi, "Optical performance monitoring in high-speed optical communication systems," 08/2014
    3. CAO Shengjiao, "Digital signal processing for front-end non-idealities in coherent optical OFDM system," 01/2014
    4. ZHANG Hongyu, "Study on advanced modulation formats in coherent optical communication systems," 08/2012
    5. HU Junhao, "Advances measurement techniques in optical fiber sensor and communication systems," 08/2011
    6. ZHANG Shaoliang, "Coherent phase-modulated optical fiber communications with linear and nonlinear phase noise," 01/2011

7. YANG Jing, “Fiber physical efforts in high-speed optical communication networks and fiber sensor systems,” 08/2010

- Graduated Master students (6):

1. GUAN Hang, “Novel polarization-diversity devices on a silicon-on-insulator platform,” 08/2014
2. Prasanna Caliaperoumal, “Optical performance monitoring in high-speed reconfigurable optical networks,” 05/2012
3. Raju Gottumukkala, “Dispersion monitoring based on RF spectrum analysis with optical filtering in high-speed optical communication systems,” 12/2010
4. YU Yi, “Filtering effects in high-speed differential phase-shift keying optical communication systems,” 12/2009
5. HAN Xue, “Comparison of modulation formats in 42.8-Gbit/s WDM fiber-optic communication systems,” 05/2009
6. LI Xiaojing, “Pilot-aided maximum likehood phase estimation in optical *M*-ary phase-shift keying system,” 12/2008

- Graduated FYP students (24)

1. CHANG Zhi Ping, “ARM SOC based firmware development in GPON test system for fiber to the home,” 05/2014
2. TAN Guan Wen, “Reach extension in directly modulated laser systems by filtering,” 05/2014
3. HE Chunyang, “Carrier recovery based on digital signal processing for 100-Gbit/s coherent optical communication systems,” 05/2014
4. SONG Min, “Simultaneous optical signal-to-noise ratio and chromatic dispersion monitoring in optical fiber communication systems,” 05/2014
5. LOH Chung Fatt, “Optical performance monitoring in high-speed optical fiber networks,” 05/2013
6. WANG Xiaoqing, “Chromatic dispersion monitoring in high-speed optical fiber networks,” 05/2013
7. LI Zhaoshuai, “Reach extension in directly modulated laser systems,” 05/2012
8. LIU Jia, “High speed driver of white-LED for visible light communications,” 05/2012
9. LIANG Lemin, “Optical performance monitoring in high-speed optical fiber networks,” 05/2012
10. Muhamad Khairul Bin Mohd Isa, “High speed optical receiver for visible light communications,” 05/2012
11. SOE San, “Optical performance monitoring in high-speed optical fiber networks,” 05/2012
12. YAP Yongbin, “High speed optical receiver for visible light communications,” 05/2012
13. ZOU Meixia, “Reach extension in directly modulated laser systems,”

05/2012

14. REN Shirui, “Receiver design of white LED wireless communication system,” 05/2011
15. TAN Hou Hock, “White LED lighting and visible light communication transmitter,” 05/2011
16. LIM Yu Ting, “A visible light communication system enabled by power line modem,” 05/2011
17. LI Yuanfeng, “Visible light communication transmitter based on white LED,” 05/2011
18. LU Huan Xun, “A visible light communication system using LED with power line modem,” 05/2011
19. XU Fang, “Optical performance monitoring in high-speed fiber communication systems,” 05/2011
20. YANG Kai, “Investigation of transmission distance improvement over standard single-mode fiber for 10-Gb/s chirped directly-modulated system,” 05/2011
21. He Minghui, “Chromatic Dispersion Monitoring In High-Speed Optical Communication Systems,” 05/2010
22. CHEE Kang Wei, “PMD monitoring for high-speed optical communication systems based on power measurement of RF tone,” 05/2009
23. V. M. Ramkumar, “Investigation of polymer optical fiber for high data rate and short range communication,” 05/2008
24. XING Rui, “Quantum-dots based biosensor project – development of a graphic interface as part of the software package for the urine analysis device,” 05/2008

- Post-doc research fellows supervised:
  - Dr. XU Zhuoran, 12/2014-present
  - Dr. ZHENG Wei, 08/2014-present
  - Dr. LING Yutao, 05/2013-05/2014
  - Dr. HU Junhao, 08/2011~08/2012
  - Dr. YANG Jing, 11/2010~08/2012
  - Dr. CHEN Wei, 08/2010~08/2012
  - Dr. ZHANG Banghong, 08/2010~08/2012
  - Dr. SHAO Xuguang, 03/2010~08/2011

ACTIVITIES:

- Member, IEEE Photonics Society (IEEE/PS)
- Member, Optical Society of America (OSA)
- Student activity chair, IEEE Singapore Section (2011~2012)
- **Chair, IEEE/PS Singapore Chapter (2010, won Best Chapter Award from IEEE Singapore Session, and Largest Membership Increase Chapter Award**

from IEEE/PS)

- Supervisor, the Student Branch of IEEE/PS Singapore Chapter (2009~present)
- Committee member, IEEE/PS Singapore Chapter (2007~present)
- Founding secretary and committee member, OSA Singapore Chapter (2010~present)
- Committee member, ECE Alumni Relations Committee, NUS (2012~present)
- Judge, ECE Graduate Student Symposium, National University of Singapore, Singapore, 2012-2014
- Organizer and invited speaker on "High Speed Optical Fiber Communications", Discover Optics 2011, an educational event for junior college students, sponsored by OSA Singapore Chapter and IEEE/PS Singapore Chapter, 2011
- Judge, Junior Talent Development Program, Singapore, 2010
- Advisor and honorary conference chair, 1st IEEE/PS Singapore chapter Best Student Paper Award Competition (BSPA), 2009
- **Chair/Co-chair, Working Group 1 (WG1) of Telecommunications Standards Advisory Committee (TSAC) for Infocomm Development Authority (IDA) of Singapore: to define the standards of the physical layer for the next generation broadband network in Singapore (2009~present)**
- **Serve in organizing committee or technical program committee (TPC) for 50+ international conferences, including:**

  1. **TPC member and session chair, Conference on Optical Fiber Communication (OFC, the flagship conference on optical communications) 2014-2016**
  2. **General chair, Signal Processing in Photonics Communications Conference, OSA Advanced Photonics Congress (SPPCom) 2015, Boston, MA, USA, June 27-July 1, 2015**
  3. Chair of Optical Communications Symposium, IEEE Photonics Global Conference (PGC) 2015, Singapore, June 28 –July 3, 2015
  4. Chair of Optical Communications Special Session, 14th IEEE International Conference on Communication Systems (ICCS) 2014, Macau, November 19-21, 2014
  5. Chair of Optical Transmission Subsystems and Techniques Subcommittee, 13th International Conference on Optical Communications and Networks (ICOCN) 2014, Suzhou, China, November 9-10, 2014
  6. Chair of Optical Communication Systems and Networks Symposium, 3rd IEEE/CIC International Conference on Communications in China (ICCC) 2014, Shanghai, China, October 13-15, 2014
  7. Conference Chair, Optoelectronic Devices and Integration V, Photonics Asia, Beijing, China, October 9-11, 2014
  8. **TPC chair, Signal Processing in Photonics Communications Conference, OSA Advanced Photonics Congress (SPPCom) 2014, San Diego, CA, USA, July 13-17, 2014**
  9. Co-Chair of Biomedical Instrumentation Track, International Conference in

Biomedical Engineering (ICBME) 2013, Singapore, December 4-7, 2013

10. Chair of Advanced Optical Communications Symposium and financial chair, IEEE Photonics Global Conference (PGC) 2012, Singapore, December 13-16, 2012
11. Conference Chair, Semiconductor Lasers and Applications V, Photonics Asia 2012, Beijing, China, November 5-9, 2012
12. **TPC co-chair, International Conference on Information Photonics & Optical Communications (IPOC) 2011, Singapore, October 21-23, 2011**
13. TPC member and publicity chair, IEEE Topical Meeting on Microwave Photonics (MWP) 2011, Singapore, October 18-21, 2011
14. Co-chair of Optical Communication and Networks Symposium and local arrangement chair, IEEE Photonics Global Conference (PGC) 2010, Singapore, December 14-16, 2010
15. Honorary conference chair, 1st Photonics Global Student Conference (PGSC) 2010, Singapore, December 14-16, 2010
16. **TPC co-chair, 12th IEEE International Conference on Communication Systems (ICCS) 2010, Singapore, November 17-19, 2010**
17. Conference co-chair on optical transmission, 9th International Conference on Optical Communications and Networks (ICOCN) 2010, Nanjing, China, October 24-27, 2010
18. Co-chair of Symposium P (Fiber Optical Devices and Applications), 5th International Conference on Materials for Advanced Technologies (ICMAT) 2009, Singapore, June 28-July 3, 2009
19. TPC member and organizing committee member, IEEE Photonics Global Conference (PGC) 2008, Singapore, December 8-11, 2008
20. TPC member and session chair, Opto-Electronics and Communications Conference (OECC) 2008, Sydney, Australia, July 7-10, 2008

- Editorial Board member (01/10/2013-30/09/2015), *Photonic Network Communications Journal* (ISSN: 1387-974X print version, 1572-8188 electronic version), published by Springer
- Editorial Board member (01/09/2013-31/08/2016), *Frontiers of Optoelectronics* (ISSN: 2095-2759 print version, 2095-2767 electronic version), published by Springer
- Reviewer for *IEEE Photonics Technology Letters, IEEE/OSA Journal of Lightwave Technology, IEEE Transaction on Communications, IEEE Journal of Selected Topics in Quantum Electronics, IEEE Photonics Journal, Optics Letters, Optics Express, Optics Communications, Optical Fiber Technology, Optics Engineering, IEE Electronics Letters, and a few other journals and international conferences*

HONORS:

- **Championship in biomedical area, the 3rd China Innovation and Entrepreneurship Competition (out of 10,000+ competitors) 2014, reported by 10+ media**
- Zhuoran Xu (Ph.D. student), Best Student Paper Award (for the paper "Adaptive

Maximum Likelihood Sequence Detection in 100-Gbit/s Coherent Optical Communication System" authored by Z. Xu, B. Zhang, C. Yu, and P.Y. Kam), 3rd NUS ECE Graduate Student Symposium 2013, Singapore, June 18, 2013

- Shengjiao Cao (Ph.D. student), Best Student Paper Award (for the paper "Mitigation of nonlinearity based on optimized percentage of dispersion pre-compensation in coherent optical PDM-OFDM systems" authored by S. Cao, C. Yu, and P.Y. Kam), IEEE Photonics Global Conference (PGC) 2012, Singapore, December 13-16, 2012
- **Shaoliang Zhang (Ph.D. student), IEEE Photonics Society Graduate Student Fellowship Award 2010 (10 winners from all over the world), which is a top honor for the graduate students in IEEE Photonics Society, reported in the IEEE Photonics Society website and also the IEEE Photonics Society newsletters**
- Jing Yang (Ph.D. student), Best Student Paper Award (for the paper "CD insensitive PMD monitoring for different modulation formats based on RF tone power measurement using an FBG notch filter" authored by J. Yang, K.W.L. Chee, and C. Yu), 7th International Conference on Information, Communications and Signal Processing (ICICS) 2009, Macau, December 8-10, 2009
- Junhao Hu (Ph.D. student), Best Student Presentation Award Honorable Mention (for the paper "Long distance fiber Bragg grating sensor system based on Erbium-doped fiber and Raman amplification" authored by J. Hu, Z. Chen, X. Yang, J. Ng, and C. Yu), Asia Communications and Photonics Conference and Exhibition (ACP) 2009, Shanghai, November 2-6, 2009
- Jing Yang (Ph.D. student), Certificate of Merits (for the paper "Multi-channel 80-GHz pulse train generation based on four-wave mixing in highly nonlinear fiber" authored by J. Yang, J. Hu, C. Yu, Y.K. Yeo, and Y. Wang), OptoElectronics and Communications Conference (OECC) 2009, Hong Kong, July 13-17, 2009
- Best Paper Award (for the paper "Polarization Insensitivity Optic Distributed Strain Sensing System Based on Stimulated Brillouin Scattering" authored by J. Yang, C. Yu, Z. Chen, J. Ng, and X. Yang), Symposium P (Fiber Optical Devices and Applications), the 5th International Conference on Materials for Advanced Technologies (ICMAT) 2009, Singapore, June 28-July 3, 2009
- Academic Achievement Award, Univ. of Southern California, 2005
- **IEEE/LEOS (now IEEE Photonics Society) Graduate Student Fellowship Award, 2004 (12 winners from all over the world), reported in the IEEE LEOS website and also the IEEE LEOS Newsletter**
- Teaching and Research Assistant Scholarship, Univ. of Southern California, 2000-2005
- Award of Academic Merit, Graduate School of Univ. of Miami, 1999
- Teaching and Research Assistant Scholarship, Univ. of Miami, 1997- 2000
- Outstanding Student Scholarship, Tsinghua Univ., 1992-1996

PUBLICATIONS (with over 1400 citations, H-index=20 till 12/12/2014, Good Scholar: http://scholar.google.com.sg/citations?user=w0UGtSoAAAAJ)

(US PATENT)

1. U.S. Pat. # 6,646,774 (Co-inventors: Z. Pan, Y. Wang, T. Luo, A.B. Sahin, Q. Yu, and A.E. Willner), "Intra-bit polarization diversity modulation," Issued on November 11, 2003

(BOOK CHAPTERS)

2. ***C. Yu***, Z. Li, and S. Zhang, "Frontiers of high-speed optical fiber communications," *Frontiers of Fiber Optics*, N.H. Zhu, L.-S. Yan, and J. Liu, editors, Science Press, 2011, ISBN: 978-7-03-032470-2 (in Chinese)

3. N. Liu and ***C. Yu***, "Optical performance monitoring in optical fiber communications," *Frontiers of Fiber Optics*, N.H. Zhu, L.-S. Yan, and J. Liu, editors, Science Press, 2011, ISBN: 978-7-03-032470-2 (in Chinese)

4. ***C. Yu***, "Polarization mode dispersion monitoring," *Optical Performance Monitoring: Advanced Techniques for Next-Generation Photonic Networks*, Calvin C. K. Chan, editor, Academic Press, Elsevier Inc., 2010, ISBN: 978-0-12-374950-5

5. A.E. Willner, ***C. Yu***, Z. Pan, and Y. Xie, "WDM fiber optic communication networks," *Handbook of Optics*, 3rd Edition, Vol. V, M. Bass, C.M. DeCusatis, J.M. Enoch, V. Lakshminarayanan, G. Li, C. MacDonald, V.N. Mahajan, E. Van Stryland, editors, McGraw-Hill, Inc., 2009, ISBN: 978-0-07-163313-0

6. A.E. Willner, Z. Pan, and ***C. Yu***, "Optical performance monitoring," *Optical Fiber Telecommunications VB*, Ivan P. Kaminow, Tingye Li, and Alan E. Willner, editors, Academic Press, Elsevier Inc., 2008, ISBN: 978-0-12-374172-1

7. ***C. Yu***, "Comparison of advanced modulation formats for 40-Gbit/s DWDM optical fiber transmission systems with 50-GHz channel spacing," *Advanced Technologies for High-Speed Optical Communications*, Lei Xu, editor, Research Signpost, 2007, ISBN: 81-308-0171-X

(JOURNALS)

8. X. Li, W.D. Zhong, A. Alphones, ***C. Yu***, and Z. Xu, "Channel Equalization in Optical OFDM Systems Using Independent Component Analysis," ***IEEE/OSA Journal of Lightwave Technology***, vol. 32, no. 18, pp. 3206-3214, September 2014

9. S. Cao, P.Y. Kam, ***C. Yu***, and X. Cheng, "Pilot-tone assisted log-likelihood ratio for LDPC coded CO-OFDM system," ***IEEE Photonics Technology Letters***, vol. 26, no. 15, pp. 1577-1580, August 2014

10. S. Hu, L. Li, X. Yi, and ***C. Yu***, "Ultraflat widely tuned single bandpass filter based on stimulated Brillouin scattering," ***IEEE Photonics Technology Letters***, vol. 26, no. 14, pp. 1466-1469, July 2014

11. Y. Yu and ***C. Yu***, "Dispersion insensitive optical signal to noise ratio monitoring of PDM signal by using uncorrelated signal power," ***Optics Express***, vol. 22, no. 11, pp. 12823-12828, June 2014

12. Y. Yu, B. Zhang, and ***C. Yu***, "Optical signal to noise ratio monitoring using single channel sampling technique," ***Optics Express***, vol. 22, no. 6, pp. 6874-6880, March 2014

13. J. Liu, Z. Li, and ***C. Yu***, "Complementary frequency shifter based on polarization modulator used for generation of a high-quality frequency-locked multicarrier," ***Optics Letters***, vol. 39, no. 6, pp. 1513-1516, March 2014

14. B. Dong, N. Chen, G. Cheng, ***C. Yu***, and Y. Gong, "Optical pump induced thermal sensitivity reduction in a minimized Er/Yb-codoped-fiber Mach–Zehnder

interferometer," ***IEEE/OSA Journal of Lightwave Technology***, vol. 32, no. 5, pp. 917-921, March 2014

15. Z. Xu, P.Y. Kam, and ***C. Yu***, "Adaptive Maximum Likelihood Sequence Detection for QPSK Coherent Optical Communication System," ***IEEE Photonics Technology Letters***, vol. 26, no. 6, pp. 583-586, March 2014
16. X. Li, W.D. Zhong, A. Alphones and ***C. Yu***, "Channel Equalization Using Independent Component Analysis in PDM-CO-OFDM," ***IEEE Photonics Technology Letters***, vol. 26, no. 5, pp. 497-500, March 2014
17. X. Li, W.D. Zhong, A. Alphones and ***C. Yu***, "Time-Domain Adaptive Decision-Directed Channel Equalizer for RGI-DP-CO-OFDM," ***IEEE Photonics Technology Letters***, vol. 26, no. 3, pp.285-288, February 2014
18. W. Xu, W.B. Huang, X.G. Huang, and ***C. Yu***, "A simple fiber-optic humidity sensor based on extrinsic Fabry–Perot cavity constructed by cellulose acetate butyrate film," ***Optical Fiber Technology***, vol. 19, no. 6, pp. 583–586, December 2013
19. S. Cao, P.Y. Kam, and ***C. Yu***, "Time-domain blind ICI mitigation for non-constant modulus format in CO-OFDM," ***IEEE Photonics Technology Letters***, vol. 25, no. 24, pp. 2490-2493, December 2013
20. X. Li, W.D. Zhong, A. Alphones and ***C. Yu***, "Fiber nonlinearity tolerance of APSK modulated DFT-S OFDM systems," ***IEEE Photonics Technology Letters***, vol. 25, no. 23, pp. 2304-2307, December 2013
21. J. Liu, N. Guo, Z. Li, ***C. Yu***, and C. Lu, "Ultrahigh-Q microwave photonic filter with tunable Q value utilizing cascaded optical-electrical feedback loops," ***Optics Letters***, vol. 38, no. 21, pp. 4304-4307, November 2013
22. X. Li, W.D. Zhong, A. Alphones and ***C. Yu***, "Pilot-aided channel equalization in RGI-PDM-CO-OFDM systems," ***IEEE Photonics Technology Letters***, vol. 25, no. 19, pp. 1924-1927, October 2013
23. S. Cao, ***C. Yu***, and P.Y. Kam, "A performance investigation of correlation-based and pilot-tone-assisted frequency offset compensation method for CO-OFDM," ***Optics Express***, vol. 21, no. 19, pp. 22847-22853, September 2013
24. X. Li, A. Alphones, W.D. Zhong and ***C. Yu***, "Investigation of PMD in direct-detection optical OFDM with zero padding," ***Optics Express***, vol. 21, no. 18, pp. 20851-20856, September 2013
25. D. Huang, T.H. Cheng, and ***C. Yu***, "Study on phase interpolation filters for coherent optical communications," ***IEEE Photonics Technology Letters***, vol. 25, no. 17, pp. 1731-1733, September 2013
26. Y. Hong, J. Chen, Z. Wong, and ***C. Yu***, "Performance of precoding MIMO system for decentralized multi-user indoor visible light communications," ***IEEE Photonics Journal***, vol. 5, no. 4, pp. 7800211.1-12, August 2013
27. C. Jin, Y. Bao, Z. Li, T. Gui, H. Shang, X. Feng, J. Li, X. Yi, ***C. Yu***, G. Li, and C. Lu, "High-resolution optical spectrum characterization using optical channel estimation and spectrum stitching technique," ***Optics Letters***, vol. 38, no. 13, pp. 2314-2316, July 2013
28. S. Cao, P.Y. Kam, and ***C. Yu***, "Pilot-aided log-likelihood ratio for LDPC coded MPSK-OFDM transmission," ***IEEE Photonics Technology Letters***, vol. 25, no. 6,

pp. 594-597, March 2013

29. B. Zhang, H. Zhang, ***C. Yu***, X. Cheng, Y.K. Yeo, P.Y. Kam, J. Yang, H. Zhang, Y.-H. Wen, and K.-M. Feng, "An all-optical modulation format conversion for 8QAM based on FWM in HNLF," ***IEEE Photonics Technology Letters***, vol. 25, no. 4, pp. 327-330, February 2013

30. D. Huang, T.H. Cheng, and ***C. Yu***, "Accurate two-stage frequency offset estimation for coherent optical systems," ***IEEE Photonics Technology Letters***, vol. 25, no. 2, pp. 179-182, January 2013

31. H. Zhang, B. Zhang, ***C. Yu***, and P.Y. Kam, "Experiment on coherent optical RZ 8-star QAM systems using decision-aided maximum likelihood phase estimation," ***IEEE Photonics Technology Letters***, vol. 24, no. 23, pp. 2139-2141, December 2012

32. S. Cao, P.Y. Kam, and ***C. Yu***, "Decision-aided, pilot-aided, decision-feedback phase estimation for coherent optical OFDM systems," ***IEEE Photonics Technology Letters***, vol. 24, no. 22, pp. 2067-2069, November 2012

33. Z. Wang, W. Zhong, and ***C. Yu***, "Performance improvement of OOK free-space optical communication systems by coherent detection and dynamic decision threshold in atmospheric turbulence conditions," ***IEEE Photonics Technology Letters***, vol. 24, no. 22, pp. 2035-2037, November 2012

34. Z. Wang, W. Zhong, ***C. Yu***, J. Chen, C.P. Shin, and W. Chen, "Performance of dimming control scheme in visible light communication system," ***Optics Express***, vol. 20, no. 17, pp. 18861-18868, August 2012

35. B. Dong, J. Hu, ***C. Yu***, and J. Hao, "Multi-wavelength Q-switched erbium doped fiber laser with a short carbon nanotube based saturable absorber," ***Optics Communications***, vol. 285, no. 18, pp. 3864-3867, August 2012

36. B. Dong, J. Hu, Z. Chen, and ***C. Yu***, "Long-distance fiber sensor system based on the second-order Raman pump and amplification," ***Applied Physics B***, vol. 108, no. 1, pp. 57-60, July 2012

37. S. Cao, ***C. Yu***, and P.Y. Kam, "Decision-aided joint compensation of transmitter IQ mismatch and phase noise for coherent optical OFDM," ***IEEE Photonics Technology Letters***, vol. 24, no. 12, pp. 1066-1068, June 2012

38. H. Zhang, P.Y. Kam, and ***C. Yu***, "Performance analysis of coherent optical 8-star QAM systems using decision-aided maximum likelihood phase estimation," ***Optics Express***, vol. 20, no. 8, pp. 9302-9311, April 2012

39. Z. Wang, W. Zhong, ***C. Yu***, and S. Fu, "Performance improvement of on-off-keying free-space optical transmission systems by a co-propagating reference continuous wave light," ***Optics Express***, vol. 20, no. 8, pp. 9284-9205, April 2012

40. J. Hu, Z. Chen, and ***C. Yu***, "150-km Long distance FBG temperature and vibration sensor system based on stimulated Raman amplification," ***IEEE/OSA Journal of Lightwave Technology***, vol. 30, no. 8, pp. 1237-1243, April 2012 **(Invited)**

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