

ZHONGQI PAN

ADDRESS: Department of Electrical & Computer Engineering (EECE)
Room MDSN 243D, Madison Hall, 131 Rex St.
University of Louisiana at Lafayette, Lafayette, LA, 70504-3890
(337) 482-5899 / Fax: (337) 482-6687, E-mail: zpan@louisiana.edu
Webpage: <http://oclab.louisiana.edu/>

EDUCATION: **University of Southern California - Ph. D.** - Electrical Engineering - 2003
Dissertation Title: Overcoming Fiber Dispersive Effects in High-Speed Reconfigurable WDM Optical Systems and Networks, Dissertation Advisor: Prof. Alan E. Willner
Tsinghua University - M.S. - Electrical Engineering - 1995
Thesis Title: Programmable Tunable External-Cavity Semiconductor Lasers, Thesis Advisor: Prof. Hanyi Zhang
Tsinghua University - B.A. - Electrical Engineering - 1990

PROFESSIONAL EXPERIENCE:

- Jul. '13 - Present **Harold Callais/BORSF Endowed Professorship in Electrical Engineering II (#03042), UL Lafayette**
- Jul. '04 - Present **Bell South Mobility/BORSF Endowed Professorship in Telecommunications (#02238), UL Lafayette**
- Jul. '14 - Present **Professor, EECE Department, UL Lafayette**
- Software Defined Networks (SDN)
 - Space-Division Multiplexing (SDM) Fiber Communications
 - Nonlinearity in Few-Mode-Fibers
 - Optical Fiber Sensors and Sensor Networks
- Jul. '08 - Jun'14 **Associate Professor, EECE Department, UL Lafayette**
- Coherent Fiber Communications Systems
 - High-Speed Digital Signal Processing
- Jul. '03 - Jun. '08 **Assistant Professor, EECE Department, UL Lafayette**
- Optical Performance Monitoring
 - Optical Signal Processing
 - Online Optical Circuits Laboratory
- Aug. '98 - Jul. '03 **Research/Teaching Assistant, Department of Electrical Engineering University of Southern California (USC)**
Optical Communications Laboratory (OCLAB)
- WDM Fiber Communications Systems and Networks
 - Optical Performance Monitoring
- Apr. '95 - Aug. '98 **Assistant Professor/Lecturer, Department of Electronic Engineering, Tsinghua University**
- Semiconductor Optical Amplifiers
 - All-Optical WDM Networks
 - Optical Controlled Phase Array Antenna
- Aug. '92 - Apr. '95 **Graduate Research Assistant, Department of Electronic Engineering, Tsinghua University**
- Tunable External Cavity Semiconductor Lasers
 - 4×622 Mb/s WDM Transmission Systems

Jul. '90 - Aug. '92

Systems Engineer, Electronics Center, 301 Hospital

- Medical Image Acquisition and Image Processing Systems

HONORS:

Award for Excellence in Academic Advising, UL Lafayette, 2012
Outstanding Academic Advisor, UL Lafayette, 2006
BellSouth/LEQSF Regents Professor, UL Lafayette, 2004-present
Marquis Who's Who in American Education
Marquis Who's Who in the World
Marquis Who's Who in America
Outstanding Academic Achievement Award, USC, 2003
National Invention Award, Third class, China, 1998
 Programmable/Manual Tunable External Cavity Laser Diodes
National Education Ministry Science & Tech. Advancement Award,
 Widely Tunable External Cavity Laser Diodes, China, 1997
Teaching Award, Third Class, Tsinghua University, 1998
Teaching Award for Young Faculty, Tsinghua University, 1997

SOCIETY ACTIVITIES:

Optical Society of America (OSA) External Relations Advisory Committee (2012-2018)
Senior Member of OSA
Senior Member of IEEE - Photonics Society and Communications Society
Guest Editors of Special Issue "Advanced DSP Techniques for High-Capacity and Energy-Efficient Optical Fiber Communications," Applied Sciences, an Open Access Journal by MDPI, 2018.
Conference Committee: Photonics West 2017, Next-Generation Optical Communication: Components, Sub-Systems, and Systems V.
Conference Committee: Photonics West 2016, Next-Generation Optical Communication: Components, Sub-Systems, and Systems V.
The Guest Editor for the Springer Photonic Network Journal, Special Issue for International Conference on Optical Communications and Networks 2015.
Conference Session Chair: the 8th International Photonics and Optoelectronics Meetings (POEM 2015)
Conference Session Chair: the 14th International Conference on Optical Communications and Networks (ICO CN) 2015
Conference Subcommittee Co-Chair: 2014 IEEE 13th International Conference on Optical Communications and Networks (ICO CN 2014), Optical Transmission Subsystems and Techniques.
Conference Session Chair: IEEE 23rd Annual Wireless & Optical Communications Conference (WOCC) 2014, Advanced Optical Modulation and Detection Schemes.
Conference Session Chair: Photonics West 2014, Advances on Optical Fiber Technologies, OPTO (Conference 9009).
National Science Foundation (NSF) ECCS Panel Review in Photonics (2007)

Technical Program Committee (TPC):

IEEE International Conference on Communication, Networks and Satellite (IEEE COMNETSAT 2018)
Asia Communications and Photonics Conference (ACP) 2018
2018 International Conference on Advances in Computing, Communications and Informatics (ICACCI)
Asia-Pacific Conference on Geosciences, Electronics, and Remote Sensing Technology (AGERS 2018)

The IEEE International Conference on Communications Systems (ICCS 2018)
2017 IEEE International Conference on Communication, Networks and Satellite
(COMNETSAT)
The IEEE International Conference on Communications Systems (ICCS 2016)
2016 IEEE International Conference on Communication, Networks and Satellite
(COMNETSAT)
The fifth International Conference on Computing, Communications and Informatics
(ICACCI) 2016
The 7th International Conference on Wireless Communications and Signal Processing
(WCSP) 2015
The 8th International Photonics and Optoelectronics Meetings (POEM 2015)
The 14th International Conference on Optical Communications and Networks (ICO CN)
2015
IEEE 4th International Conference on Advances in Computing, Communications and
Informatics (ICACCI), Special Session on Visible Light Communications, 2015
International Conference on Signal Processing & Data Mining (ICSPDM) 2015
IEEE International Broadband and Photonics Conference (IBP) 2015
The 13th International Conference on Optical Communications and Networks (ICO CN)
2014
The IEEE International Conference on Communications Systems (ICCS 2014)
The 23rd Annual Wireless & Optical Communications Conference (WOCC 2014)
The IEEE International Conference on Communications Systems (ICCS 2012)
The IEEE International Conference on Communications Systems (ICCS 2010)

UL LAFAYETTE ACTIVITIES:

Ph.D. Executive Committee, College of Engineering (2016 -)
Search Chair, Power Chair Professor Search Committee, EECE Department (2015-16)
Member, Dept. Head & Super Chair Search Committee, EECE Department (2015-16)
Graduate Coordinator, EECE Department (March 2013 - present)
Chair, Promotion and Tenure Committee, College of Engineering (2013 - 2014)
Commencement Coordinator, College of Engineering (2012 - present)
Member, Promotion and Tenure Committee, College of Engineering (2011 - present)
Member, Academic Affairs and Standards Committee, UL Lafayette (2011 - 2012)
Member, Graduate Affairs Committee, EECE Department (2009 - 2013)
Member, Faculty Advisory Committee, College of Engineering (2008 - 2009)
Member, Graduate Peer Review Committee, College of Engineering (2006 - 2011)
Member, UL Lafayette Faculty Senate (2006 - 2008)
Member, CE Chair Professor Search Committee, EECE Department (2006)
Mathematic Committee, College of Engineering (2003 - 2006)
Member, Summer Research Review Committee, College of Engineering (2003)

JOURNAL/CONFERENCE REVIEWER:

Applied Physics B - Lasers and Optics
Applied Physics Letters
Chinese Optics Letters
China Communications
Digital Signal Processing (Elsevier Editorial System)
IEEE Access
IEEE Communications Letters
IEEE Journal of Selected Topic on Quantum Electronics (JSTQE)
IEEE Journal on Selected Areas in Communications

IEEE/OSA Journal of Lightwave Technology (JLT)
IEEE Photonics Technology Letters (PTL)
IEEE Photonics Journal
IEEE Transactions on Parallel and Distributed Systems
IEEE Transactions on Communications
International Journal of Optics
Optics Letters (OSA)
Optics Express (OSA)
OSA/IEEE Journal of Optical Communications and Networking (JOCN)
Optics Communications (Elsevier Editorial System)
Optical Fiber Technology (Elsevier Editorial System)
Optical and Quantum Electronics
Optics and Laser Technology
Photonic Network Communications (Springer)
Sensors
IEEE International Conference on Communication, Networks and Satellite
Asia Communications and Photonics Conference (ACP)
International Conference on Advances in Computing, Communications and Informatics
IEEE International Conference on Communication, Networks and Satellite
Asia Communications and Photonics Conference (ACP)
International Conference on Advances in Computing, Communications and Informatics
Asia-Pacific Conference on Geosciences, Electronics, and Remote Sensing Technology
The IEEE International Conference on Communications Systems
The International Conference on Wireless Communications and Signal Processing
The International Photonics and Optoelectronics Meetings
The International Conference on Optical Communications and Networks
International Conference on Signal Processing & Data Mining
IEEE International Broadband and Photonics Conference
The International Conference on Optical Asia-Pacific Conference on Geosciences,
Electronics, and Remote Sensing Technology
International Conference on Signal Processing & Data Mining
IEEE International Broadband and Photonics Conference
Asia-Pacific Conference on Communications/International Symposium on Multi-
Dimensional Mobile Communications
The Annual Wireless and Optical Communications Conference

TEACHING:

University of Louisiana at Lafayette

Digital Systems (EECE 240)
Microprocessor (EECE 340)
Microprocessor Lab (EECE 342)
Random Processes for Electrical Engineering (EECE 380)
Circuits and Signals III (EECE 444)
Seminar (EECE 423)
Senior Design Lab I (EECE 443)
Communication Engineering Lab (EECE 453)
Communication Engineering II (EECE 458G)
Senior Design Lab II (EECE 460)
Optical Fiber Communications (TLCM 521/EECE 530)

Tsinghua University (1995-1998)

Physics Optics

Senior Design

PH.D. DISSERTATION ADVISED (AS MAJOR PROFESSOR):

1. **Junyi Wang**, “Spectrally Efficient Transmission using DSP Based Spectral Shaping in Coherent Fiber Communication Systems,” Ph.D. in Computer Engineering, May 2013.
2. **Xuan He**, “Mode-Division-Multiplexing Transmission in Multi-Mode Fiber using MIMO Technology,” Ph.D. in Computer Engineering, October 2014.
3. **Yi Weng**, Dissertation Proposal: Frequency Domain Least Mean Square Algorithm for Few Mode Fiber Transmissions, Ph.D. in System Engineering, May 2017.
4. **Shailendra K Gaikwad**, Dissertation Proposal: Implementing MPLS-TP using Software Defined Networks (SDN), Ph.D. in System Engineering, Expected in December 2018.

MS THESES ADVISED (AS MAJOR PROFESSOR):

1. **Swaty Chandel**, “Ultrahigh-Speed Optical Pulse Using a Phase Modulator and Two Stages of Delay Interferometers,” August, 2005.
2. **Suman Shirimalla**, “A Simulative Study Looking In To the Effects of Varying Simulation Parameters on Waveguide Structures And Fiber Optic Devices,” February, 2006.
3. **Sudhara Ponugoti**, “Generation of high repetition rate optical pulses using Mach-Zehnder modulator and three stages of Mach-Zehnder delay interferometer,” March, 2006.
4. **Deosthali Kanchan**, “A Simulation Study of the Variation of the Structural Parameters of a Photonic Crystal Fiber,” April, 2006.
5. **Kailu Gao**, “Application of Electronic Dispersion Compensator and Forward Error Correction in Optical Fiber Communications,” November, 2008.
6. **Phillip Regan**, “Passive Optical Network,” November 2009.
7. **Lu Yang**, “Repeaterless 40-Gb/s Fiber Transmission Using QPSK Modulation Formats and Coherent Detection,” December 2010.
8. **Thomas Langston Myers**, “Improved Aspects of Optical Receiver Performance via Coherent Detection,” November 2011.
9. **Harshavardhan R Batreddy**, “Comparison of Single Carrier Coherent Optical system and CO-OFDM,” December 2012.
10. **Shailendra K Gaikwad**, “Implementing MPLS-TP using SDN: OpenFlow Enabled Control Plane,” August 2014.
11. **Wang Yao**, “Pulse Amplitude Modulation (PAM-4) System for Data Center Applications,” Expected in December 2016.
12. **Mingchen Zhu**, “Orbital Angular Momentum (OAM) and its Applications in Sensing,” Expected in May 2018.

FUNDINGS:

- Software Defined Network Research Fund in the Electrical & Computer Engineering, Sponsored by NEC Lab America, \$20,000, Year 2018.
- Characterization and Design Optimization of DWDM Point to Point Transport System based on PAM4 Direct Detection, Industry Research Project, Sponsored by Oplink Communications, Total \$4,500, Year 2017 (PI).
- Recruiting Superior Ph.D. Students in Emerging Research Areas of Systems Engineering, BoRSF Graduate Fellows and Graduate Fellows for Teachers Subprogram, Total \$120,000, Year 2015-2019 (Co-PI).

- Investigation of the Nonlinearity in Few Mode Fibers for Space Division Multiplexing Optical Systems, NSF EPSCoR Pilot Funding for New Research, Contract No: LEQSF-EPS(2015)-PFUND-423, Total \$10,000, Year 2014-2015 (PI).
- A Senior Undergraduate Laboratory for RF and Wireless Communications, LEQSF (2013-14)-ENH-TR, Total \$142,700, BoRSF Enhancement Subprogram, Year 2013-2014 (Co-PI).
- Investigation of the spectrally efficient Nyquist-WDM signal generation and detection, NSF EPSCoR Pilot Funding for New Research, Contract No: LEQSF-EPS (2013)-PFUND-338, Total \$10,000, Year 2013 (PI).
- Novel Polarization de-multiplexing using digital multistage PMD compensator for high-order coherent modulation at 100 Gbit/s and beyond, Louisiana NSF EPSCoR the Links with Industry, Research Centers, and National Laboratories (LINK) program, Contract No.: NSF(2010)-LINK-68, Total \$6,000, Year 2012 (PI).
- Frequency domain PMD monitoring and compensation in high-speed coherent systems with digital signal processing, NSF EPSCoR Pilot Funding for New Research, Total \$10,000, Year 2011 (PI).
- Digital signal processing in optical coherent systems at 100 Gbit/s and beyond, Louisiana NSF EPSCoR the Links with Industry, Research Centers, and National Laboratories (LINK) program, Contract No.: NSF(2010)-LINK-48, Total \$6,000, Year 2010 (PI).
- Optical Fiber Fusion Splicer for the Development of a Multidisciplinary Program at UL Lafayette, Board of Regents Support Fund (BoRSF), Contract No.: LEQSF(2010-11)-ENH-TR-38(027MUL-10), Total \$49,281, Multidisciplinary Subprogram, Year 2010-2011 (PI).
- Extending the optical fiber technology into oil and natural gas wells, Board of Regents Support Fund (BoRSF), Contract No.: LEQSF(2009-10)-ENH-TR (021MUL-09), Total \$58,816, Multidisciplinary Subprogram, Year 2009-2010 (Co-PI).
- The applications of digital signal processing in coherent optical fiber communication systems, NSF EPSCoR Pilot Funding for New Research, Contract No.: NSF/LEQSF(2009)-Pfund-157, Total \$10,000, Year 2009 (PI).
- Ultra-high speed optical 3R and wavelength conversion for the next generation of WDM optical network, Louisiana Board of Regents Support Fund (BoRSF), Research Competitiveness Subprogram (RCS), Total \$98,439, Year 2007-2010 (PI).
- Wavelength tunable short pulse generation, measurement and applications in ultra high-speed optical systems, Information Technology Initiative (ITI) Program, Total \$194,087, Year 2007-2009 (PI).
- Optical autocorrelator for short pulse measurement, ULL Summer Research Support, Total \$4,800, Year 2007 (PI).
- Development of an integrated optics and fiber communications education and research program, Louisiana EPSCoR the Preliminary Planning Grants for Major Initiatives, Contract No.: NSF(2006)-LSII-Planning-25, Total \$10,000, Year 2006-2007 (PI).
- The Laboratory for Information Processing and Data Communications in Fiber System, Louisiana Board of Regents Support Fund (BoRSF), Contract No.: LEQSF(2006-07)-ENH-TR-84, Total \$79,000, Multidisciplinary Subprogram, Year 2006-2007 (PI).
- EPSCoR Travel Grants for Emerging Faculty (TGEF) to DARPA/MTO Young Faculty Award workshop, Total \$1,200, November 2006 (PI).

- Collaborative Research: An online laboratory for optical circuits courses, NSF, the Course, Curriculum and Laboratory Improvement (CCLI) program, Award No. DUE-0536419, Total \$150,000, Year 2006 (Co-PI).
- Multi-wavelength short pulses generation and measurement in ultra high-speed optical systems, NSF PFUND (Louisiana EPSCoR Pilot Funding for New Research) project, Contract No.: NSF/LEQSF(2006)-Pfund-59, Total \$10,000, Year 2006 (PI).
- Development of optics laboratory for engineers and scientists, Louisiana Board of Regents Support Fund (BoRSF), Contract No.: LEQSF(2005-06)-ENH-TR-86, Total \$105,000, BoRSF Multidisciplinary Subprogram, Year 2005-2007 (PI).
- High-speed (40 - 160 GHz) optical clock generation using a phase modulator and PM fibers, ULL Summer Research Support, Total \$4,800, Year 2005 (PI).
- EPSCoR Travel Grants for Emerging Faculty (TGEF) to OSA/SPIE Optics in the Southeast (OISE), Total \$1,200, November 2004 (PI).
- High-speed test and measurement equipment to enhance the telecommunication program in the Department of Electrical & Computer Engineering at UL Lafayette, Contract No.: LEQSF(2004-05)-ENH-TR-92, Total \$87,645, BoRSF Enhancement Subprogram, Year 2004-2005 (PI).
- High speed oscilloscope to enhance the optical communication laboratory in the Department of Electrical & Computer Engineering at UL Lafayette, Contract No.: LEQSF(2004-05)-ENH-TR-91, Total \$89,766, BoRSF Enhancement Subprogram, Year 2004-2005 (Co-PI).

PATENTS:

1. Title: Autocorrelation Technique Based on Measurement of Polarization Effects of Optical Pulses (**U.S. Pat. Application No. 20060244951**), Co-Inventors: A. E. Willner, T. Luo, C. Yu, L.-S. Yan, and S. Kumar.
2. Monitoring Optical Dispersion Based on Vestigial Sideband Optical Filtering (**U.S. Pat. Ser. No. 7,035,538**), Issued on April, 2006, Co-Inventors: A.E. Willner, L. Yan, and Q. Yu.
3. Title: Intra-bit polarization diversity modulation for PMD mitigation (**U.S. Pat. Ser. No. 6,646,774**), Issued on November, 2003, Co-Inventors: Y. Wang, C. Yu, T. Luo, Q. Yu, A. Sahin and A. E. Willner.
4. Title: WDM fiber amplifiers using sampled Bragg gratings (**U.S. Pat. Ser. No. 6,621, 627**), Issued on September, 2003, Co-Inventors: Y. Xie, and A. E. Willner.
5. Title: Tunable optical dispersion-slope compensation based on a nonlinearly-chirped Bragg grating (**U.S. Pat. Ser. No. 6,453,093**), Issued on June, 2002, Co-Inventors: A. E. Willner, Y. Xie, and S. Lee.
6. Title: Tunable compensation for polarization mode dispersion using a birefringent nonlinearly-chirped Bragg grating in a dual-pass configuration (**U.S. Pat. Ser. No. 6,400,869**), Issued on June, 2002, Co-Inventors: Y. Xie, S. Lee, and A. E. Willner.
7. Title: Programmable/Manual tunable external cavity laser diodes (**China Pat. Ser. No. 94106355.0**), Co-Inventors: H. Zhang, J. Yang, K. Bi, and B. Zhou.

PUBLICATIONS:

BOOK CHAPTERS:

1. J. Wang, Y. Weng, and Z. Pan, "Digital Signal Processing for Nyquist-WDM Optical Fiber Transmission Systems," *Optical Communication Systems: Fundamentals, Techniques and Applications*, Nova Science Publishers, 2015.
2. Z. Pan, "Chromatic Dispersion Monitoring," *Optical Performance Monitoring Techniques for Next Generation Photonic Networks*, Calvin C K Chan, editor, Elsevier Inc., 2010.

3. A. E. Willner, C. Yu, Z. Pan, and Y. Xie, "Wavelength-Division-Multiplexed Fiber Optic Communication Networks," Chapter 21, *Handbook of Optics*, 3E Volume V, G. Li and C. DeCusatis, editors, McGraw-Hill, Inc., New York, 2009.
4. A. E. Willner, Z. Pan, and C. Yu, "Optical Performance Monitoring," *Optical Fiber Telecommunications V B*, Academic Press, by I. P. Kaminow, T. Li, and A. E. Willner, Chapter 7, February 2008.
5. A. E. Willner, and Z. Pan, "Optical Diagnosis, Performance Monitoring and Characterization for PON," Chapter 7, *Passive Optical Network Technologies*, by Cedric F. Lam, Academic Press, October 2007.
6. A. E. Willner, and Z. Pan, "Optical Communications," *Handbook of Photonics, 2nd Edition*, CRC Press, Chapter 20, 2006.
7. Z. Pan, "Interference of Partially Coherent Light" (Chapter 2.7.4, 2.7.7, and 2.7.9) and "Ray Optics" (Chapter 3, First Draft), *Optics: Principles and Applications*, by Yanbiao Liao, Publishing House of Electronics Industry (China), October 2006.

INVITED PAPERS

1. Y. Weng, X. He, and Z. Pan, "Space Division Multiplexing Optical Communication using Few-Mode Fibers," Invited paper, *Optical Fiber Technology*, Vol. 36, pp. 155-180, July, 2017.
2. Z. Pan, Y. Weng, and X. He, "Adaptive Frequency-Domain Equalization and MIMO Signal Processing in Mode-Division Multiplexing Systems using Few-Mode Fibers," *OSA Advanced Photonics 2016 on Signal Processing in Photonics Communications (SPPCom)*, Paper SpW2G. 1, Vancouver, Canada, July 18-20, 2016.
3. Z. Pan, Y. Weng, and J. Wang, "Investigation of Nonlinear Effects in Few-Mode Fibers," Invited paper, *the Special Issue of the Springer Photonic Network Journal*, Vol. 31, Issue 2, pp 305-315, April 2016.
4. Z. Pan, J. Wang, and Y. Weng, "Digital Signal Processing Techniques in Nyquist-WDM Transmission Systems," Invited paper, *14th International Conference on Optical Communications and Networks (ICOON'15)*, Nanjing, July 2015.
5. Z. Pan, J. Wang, and Y. Weng, "Investigation of Digital-to-Analog Converter (DAC) in Digital Nyquist-WDM Transmission Systems," Invited paper, *the 8th International Photonics and Optoelectronics Meetings (POEM 2015)*, Wuhan, June 2015.
6. Z. Pan, Y. Weng, and X. He, "Investigation of the Nonlinearity in Few-Mode Fibers," Invited paper, *13th International Conference on Optical Communications and Networks (ICOON'14)*, Paper S42.1, Soochow, November 2014.
7. Z. Pan, "Frequency Domain Equalizers in Few-Mode Fiber Space-Division-Multiplexing Systems," Invited paper, *23rd IEEE Annual Wireless & Optical Communications Conference (WOCC)'14*, New Jersey, May 2014.
8. Z. Pan, X. He, and W. Yi "Hardware efficient frequency domain equalization in few mode fiber coherent transmission systems," Invited paper, *Next-Generation Optical Communication: Components, Sub-Systems, and Systems III, SPIE OPTO*, Paper 9009-5, San Francisco, California, February 2014.
9. A. E. Willner, Z. Pan, and M. I. Hayee, "Major Accomplishments in 2010 on Optical Fiber Communications," Invited paper, *IEEE Photonics Journal*, Vol. 3, No. 2, Pages 320-324, April 2011.
10. Z. Pan, C. Yu, and A. E. Willner, "Optical Performance Monitoring for the Next Generation Optical Communication Networks," Invited paper, *Optical Fiber Technology*, Vol. 16, No. 1, Pages 20-45, January 2010.

11. A. E. Willner, Y.-W. Song, B. Hoanca, Z. Pan, and J.E. McGeehan, "Dispersion Management," Invited paper, *Encyclopedia of Modern Optics*, December, 2004.
12. Z. Pan, A. E. Willner, C. Yu, and Y. Wang, "Applications of Highly Nonlinear Fiber in WDM Communications Systems," Invited paper, *OSA/SPIE Optics in the Southeast*, Paper D2, November 4-5, Charlotte, North Carolina, 2004.
13. A. E. Willner, S. M. R. Motaghian, L.S. Yan, Z. Pan, and M. Hauer, "Monitoring and Control of Polarization-related Impairments in Optical Fiber Systems," Invited paper, *IEEE/OSA Journal of Lightwave Technology*, Vol. 22, No. 1, January 2004.
14. A. E. Willner, S. M. Motaghian Reza, Z. Pan, and Q. Yu, "Performance degradations and monitoring in optical networks," Invited paper, *Asia-Pacific Optical and Wireless Communications (APOC)'03*, Proceedings of SPIE, Vol. 5282, November 2003.
15. Q. Yu, L.-S. Yan, Z. Pan, and A. E. Willner, "Chromatic dispersion monitor for WDM systems using vestigial-sideband optical filtering," Invited paper, *Conference on Optical Fiber Communication (OFC) '02*, Anaheim, CA, March 2002, Paper WE3, pp. 197-199.
16. A. E. Willner and Z. Pan, "Implementing Subcarrier-Based Control in Optical Networking," Invited Paper, *IEEE MTTs International Microwave Symposium, Special Session on RF Photonic Technologies for Optical Networks*, paper 2491, Seattle, Washington, June 2-7, 2002.
17. D. Gurkan, M. Hauer, A. Sahin, Z. Pan, A. E. Willner, K. R. Parameswaren, and M. M. Fejer, "Demonstration of multi-wavelength all-optical header recognition using a PPLN and optical correlators," Invited paper, *the 27th Europe Conference on Optical Communication (ECOC) '01*, Amsterdam, Netherlands, September 2001, Paper: We.B.2.5.

REFEREED JOURNALS:

1. Y. Weng, J. Wang, and Z. Pan, "Recent Advances in DSP Techniques for Mode Division Multiplexing Optical Networks with MIMO Equalization: A Review," *Applied Science, Optics and Lasers*, Special Issue "Advanced DSP Techniques for High-Capacity and Energy-Efficient Optical Fiber Communications," 2019.
2. Z. Qin, and Z. Pan, "Analysis of few-mode EDFAs with complex doping profiles by theoretical models based on vector modes," *Optics Communications*, Vol. 424, pp. 113-122, October, 2018.
3. X. He, Y. Weng, J. Wang, and Z. Pan, "Fast convergent frequency-domain MIMO equalizer for few-mode fiber communication systems," *Optics Communications*, Vol. 409, pp. 131-136, February, 2018.
4. Y. Weng, J. Wang, X. He, and Z. Pan, "A rigorous analysis of digital pre-emphasis and DAC resolution for interleaved DAC Nyquist-WDM signal generation in high-speed coherent optical transmission systems," *Optics Communications*, Vol. 409, pp. 77-85, February, 2018.
5. Y. Weng, T. Wang, and Z. Pan, "Multi-functional fiber optic sensors based on mode division multiplexing," *OSA Optical Materials Express*. Vol. 7, No. 6, pp. 1917-1933, Jun, 2017.
6. Y. Weng, X. He, W. Yao, M. Pacheco, J. Wang, and Z. Pan "Investigation of Adaptive Filtering and MDL Mitigation Based on Space-Time Block-Coding for Spatial Division Multiplexed Coherent Receivers," *Optical Fiber Technology*, Vol. 36, pp. 231-236, July, 2017.
7. Y. Weng, X. He, and Z. Pan, "Space Division Multiplexing Optical Communication using Few-Mode Fibers," Invited paper, *Optical Fiber Technology*, Vol. 36, pp. 155-180, July, 2017.
8. Z. Pan, J. Wang, and Y. Weng, "Digital signal processing techniques in Nyquist-WDM transmission systems," Invited paper, *the Special Issue of the Springer Photonic Network Journal*, Vol. 32, No.2, pp. 236-245, October 2016.
9. Y. Weng, E. Ip, Z. Pan, and T. Wang, "Advanced Spatial-Division Multiplexed Measurement Systems Propositions - From Telecommunication to Sensing Applications: A Review." *Sensors*, 16 (9), 1387, 2016.

10. Z. Pan, Y. Weng, and J. Wang, "Investigation of Nonlinear Effects in Few-Mode Fibers," Invited paper, *the Special Issue of the Springer Photonic Network Journal*, Vol. 31, Issue 2, pp 305-315, April 2016.
11. Y. Weng, E. Ip, Z. Pan, and T. Wang, "Few-mode distributed optical fiber sensors," OSA *Optics Photonics News*, 26(12), 59 (2015).
12. Y. Weng, E. Ip, Z. Pan, and T. Wang, "Single-End Simultaneous Temperature and Strain Sensing Techniques Based on Brillouin Optical Time Domain Reflectometry in Few-mode Fibers," OSA *Optics Express*, Vol. 23, No. 7, Apr 2015.
13. Y. Weng, X. He, J. Wang, and Z. Pan, "All-Optical Ultrafast Wavelength and Mode Converter Based on Inter-Modal Four-Wave Mixing in Few-Mode Fibers," *Optics Communications*, Vol. 348, pp. 7-12, August, 2015.
14. J. Wang, and Z. Pan, "Generate Nyquist-WDM Signal Using a DAC with Zero-Order Holding at the Symbol Rate," *IEEE/OSA Journal of Lightwave Technology*, Vol. 32, No. 24, pp. 4085-4091, December, 2014.
15. X. He, Y. Weng and Z. Pan, "A Step-Size Controlled Method for Fast Convergent Adaptive FD-LMS Algorithm in Few-Mode Fiber Communication Systems," *IEEE/OSA Journal of Lightwave Technology*, Vol. 32, No. 22, pp. 3820-3826, November, 2014.
16. X. Jiang, J. Wang, and Z. Pan, "Experimental Evaluation of Chromatic Dispersion Estimation Method Using Polynomial Fitting," *Optics Communications*, Vol. 331, pp. 119-123, 15 November 2014.
17. J. Wang, C. Xie, and Z. Pan, "Matched Filter Design for RRC Spectrally Shaped Nyquist-WDM Systems," *IEEE Photonics Technology Letters*, Vol. 25, NO. 23, pp. 2263-2266, December 2013.
18. J. Wang, C. Xie, and Z. Pan, "Optimization of DSP to Generate Spectrally Efficient 16QAM Nyquist-WDM Signals," *IEEE Photonics Technology Letters*, Vol. 25, No. 8, pp. 772-775, April 2013.
19. J. Wang, X. Jiang, X. He, Y. Weng, and Z. Pan, "Chromatic Dispersion Estimation Methods using Polynomial Fitting in PDM-QPSK or Other Multilevel-Format Coherent Optical Systems," *Optical Fiber Technology*, Vol. 19, No. 2, Pages 162-168, March 2013.
20. J. Wang, C. Xie, and Z. Pan, "Generation of Spectrally Efficient Nyquist-WDM QPSK Signals using digital FIR or FDE filters at Transmitters," *IEEE/OSA Journal of Lightwave Technology*, Vol. 30, No. 23, Page(s) 3679-3686, December 2012.
21. X. He, J. Wang, and Z. Pan, "A DOP Feedback Controlling Multi-Stage Electrical PMD Compensator in Digital Coherent Receiver," *Optical Fiber Technology*, Vol. 18, No. 6, Pages 447-451, December 2012.
22. A. E. Willner, Z. Pan, and M. I. Hayee, "Major Accomplishments in 2010 on Optical Fiber Communications," *IEEE Photonics Journal*, Vol. 3, No. 2, Pages 320-324, April 2011.
23. Z. Pan, C. Yu, and A. E. Willner, "Optical Performance Monitoring for the Next Generation Optical Communication Networks," Invited paper, *Optical Fiber Technology*, Vol. 16, No. 1, Pages 20-45, January 2010.
24. C. Yu, Y. Wang, Z. Pan, T. Luo, S. Kumar, B. Zhang, and A. E. Willner, "Carrier-suppressed 160-GHz pulse-train generation using a 40-GHz phase modulator with polarization-maintaining fiber," *Optics Letters*, Vol. 34, pp. 1657-1659, June 2009.
25. Z. Fu, Q. Gan, K. Gao, Z. Pan, and F. J. Bartoli, "Numerical Investigation of a Bidirectional Wave Coupler Based on Plasmonic Bragg Gratings in the Near Infrared Domain," *IEEE/OSA Journal of Lightwave Technology*, Vol. 26, No. 22, pp. 3699-3703, November 2008.

26. Z. Pan, S. Chandel, and C. Yu, "Ultrahigh-Speed Optical Pulse Generation Using a Phase Modulator and Two Stages of Delayed Mach-Zehnder Interferometers," *SPIE Optical Engineering*, Vol. 46, No. 7, July, 2007.
27. C. Yu, Z. Pan, T. Luo, Y. Wang, L. Christen, and A. E. Willner, "Beyond 40-GHz Return-to-Zero Optical Pulse-Train Generation Using a Phase Modulator and Polarization-Maintaining Fiber," *IEEE Photonics Technology Letters*, Vol. 19, No. 1, pp. 42-44, January, 2007.
28. C. Yu, T. Luo, B. Zhang, Z. Pan, M. Adler, Y. Wang, J.E. McGeehan, A. E. Willner, "Wavelength-Shift-Free 3R Regenerator for 40-Gb/s RZ System by Optical Parametric Amplification in Fiber," *IEEE Photonics Technology Letters*, Vol. 18, No. 24, pp. 2569-2571, December, 2006.
29. T. Luo, C. Yu, L.-S. Yan, S. Kumar, Z. Pan and A. E. Willner, "Simple Autocorrelation Technique Based on Degree-of-Polarization Measurement," *IEEE Photonics Technology Letters*, Vol. 18, No. 15, pp. 1606-1608, August, 2006.
30. T. Luo, C. Yu, Z. Pan, Y. Wang, J. E. McGeehan, M. Adler and A. E. Willner, "All Optical Chromatic Dispersion Monitoring of a 40-Gbit/s RZ Signal by Measuring the XPM-Generated Optical Tone Power in a Highly-Nonlinear Fiber," *IEEE Photonics Technology Letters*, Vol. 18, No. 2, pp. 430-432, February 2006.
31. Y. W. Song, S. M. R. Motaghian, Z. Pan, and A.E. Willner, "Efficient DOP monitoring of WDM channels for simultaneous PMD compensation," *Optics Communications*, Vol. 255, No. 4-6 , pp. 225-229, November 2005.
32. Y. Wang, C. Yu, T. Luo, L. Yan, Z. Pan, and A. E. Willner, "Tunable all-optical wavelength conversion and wavelength multicasting using orthogonally polarized fiber FWM," *IEEE/OSA Journal of Lightwave Technology*, Vol. 23, No. 10, pp. 3331-3338, October 2005.
33. T. Luo, C. Yu, Z. Pan, Y. Wang, Y. Arieli, and A. E. Willner, "Dispersive effects monitoring for RZ data by adding a frequency-shifted carrier along the orthogonal polarization state," *IEEE/OSA Journal of Lightwave Technology*, Vol. 23, No. 10, pp. 3295-3301, October 2005.
34. Y. W. Song, Z. Pan, Y. Arieli, S. M. R. Motaghian, S. A. Havstad, and A. E. Willner, "Immunization of WDM systems to nonlinearity-induced crosstalk using optical polarization-shift-keying," *Optics Communications*, Vol. 252, No. 1-3, pp. 162-166, August 2005.
35. C. Yu, L. Christen, T. Luo, Y. Wang, Z. Pan, L.-S. Yan, and A.E. Willner, "All-optical XOR gate using polarization rotation in single highly-nonlinear fiber," *IEEE Photonics Technology Letters*, Vol. 17, No. 6, pp. 1232- 1234, June 2005.
36. C. Yu, L.-S. Yan, T. Luo, Y. Wang, Z. Pan, and A. E. Willner, "Width-tunable optical RZ pulse train generation based on four-wave mixing in highly-nonlinear fiber," *IEEE Photonics Technology Letters*, Vol. 17, No. 3, pp. 636- 638, March 2005.
37. T. Luo, L. Yan, Y. Q. Shi, Z. Pan, Y. W. Song, A. E. Willner, and S. Yao, "Tunable wavelength spacing multi-wavelength ring laser using programmable DGD module as intra-cavity filter," *IEEE-Electronics Letters*, Vol. 40, No. 25, pp. 1578-1579, December 2004.
38. Z. Pan, Y. W. Song, C. Yu, Y. Wang, and A. E. Willner, "Using Sampled Nonlinearly-Chirped Fiber Bragg Gratings to Achieve 40-Gbit/s Tunable Multi-channel Dispersion Compensation," *Optics Communications*, Vol. 241, No.4-6, pp. 371-375, November 16, 2004.
39. T. Luo, Z. Pan, S. M. R. Motaghian, L. S. Yan, A. Sahin and A. E. Willner, "PMD Monitoring by Tracking the Chromatic-Dispersion-Insensitive RF power of the Vestigial Sideband," *IEEE Photonics Technology Letters*, Vol. 16, No. 9, pp 2177-2179, September 2004.
40. Z. Pan, Q. Yu, Y. Arieli and A. E. Willner, "The effects of XPM-induced fast polarization-state fluctuations on PMD compensated WDM systems," *IEEE Photonics Technology Letters*, Vol. 16, No. 8, pp 1963-1965, August 2004.

41. C. Yu, Z. Pan, Y. Wang, Y. W. Song, D. Gurkan, M. C. Hauer, D. S. Starodubov, and A. E. Willner, "Polarization-insensitive all-optical wavelength conversion using dispersion-shifted fiber with a fiber Bragg grating and a Faraday rotator mirror," *IEEE Photonics Technology Letters*, Vol. 16, No. 8, pp 1906-1908, August 2004.
42. C. Yu, Q. Yu, Z. Pan, A. B. Sahin, and A. E. Willner, "Optically Compensating the PMD-Induced RF Power Fading for Single-Sideband Subcarrier-Multiplexed Systems," *IEEE Photonics Technology Letters*, Vol. 16, No. 1, pp 341-343, January 2004.
43. Z. Pan, Q. Yu, Y. Xie, S. A. Havstad, A. E. Willner, D. S. Starodubov, and J. Feinberg, "Real-time Group-Velocity Dispersion Monitoring and Automated Compensation without Modifications of the Transmitter," *Optics Communications*, Vol. 230, No.1-3, pp. 145-149, January 15, 2004.
44. A. E. Willner, S. M. R. Motaghian, L.S. Yan, Z. Pan, and M. Hauer, "Monitoring and Control of Polarization-related Impairments in Optical Fiber Systems," Invited paper, *IEEE/OSA Journal of Lightwave Technology*, Vol. 22, No. 1, January 2004.
45. Z. Pan, Q. Yu, Y. Xie, Y. W. Song, and A. E. Willner, "Clock-tone regeneration due to higher-order PMD in NRZ systems," *IEEE Photonics Technology Letters*, Vol. 15, No. 2, pp. 338-340, February 2003.
46. Y. W. Song, S. M. R. Motaghian, D. Starodubov, J. E. Rothenberg, Z. Pan, H. Li, R. Wilcox, J. Popelek, R. Caldwell, V. Grubsky, and A. E. Willner, "Tunable interchannel broad-band dispersion-slope compensation for 10-Gb/s WDM systems using a nonchannelized third-order chirped FBG," *IEEE Photonics Technology Letters*, Vol. 15, No. 1, pp. 144-146, January 2003.
47. Z. Pan, Y. W. Song, C. Yu, Y. Wang, Q. Yu, J. Popelek, H. Li, Y. Li, and A. E. Willner, "Tunable Chromatic Dispersion Compensation in 40-Gbit/s Systems Using Nonlinearly-Chirped Fiber Bragg Gratings," *IEEE/OSA Journal of Lightwave Technology*, Vol. 20, No. 12, pp. 2239-2246, December 2002.
48. Y. W. Song, Z. Pan, C. Yu, Y. Wang, Q. Yu, J. Popelek, H. Li, Y. Li, and A. E. Willner, "Tunable Dispersion Slope Compensation for WDM Systems Using Non-Channelized 3rd -order Chirped Fiber Bragg Gratings," *IEEE/OSA Journal of Lightwave Technology*, Vol. 20, No. 12, pp. 2259-2266, December 2002.
49. Q. Yu, Z. Pan, L.-S. Yan, and A. E. Willner, "Chromatic dispersion monitoring technique using sideband optical filtering and clock phase-shift detection," *IEEE/OSA Journal of Lightwave Technology*, Vol. 20, No. 12, pp. 2267-2271, December 2002.
50. Z. Pan, Y. Wang, C. Yu, T. Luo, A. Sahin, Q. Yu, and A. E. Willner, "Intra-bit polarization diversity modulation for the mitigation of PMD effects," *IEEE Photonics Technology Letters*, Vol. 14, No. 10, pp. 1466-1468, October 2002.
51. Y.W. Song, D. Starodubov, Z. Pan, Y. Xie, A. E. Willner, and J. Feinberg, "Tunable WDM dispersion compensation with fixed bandwidth and fixed passband center wavelength using a uniform FBG," *IEEE Photonics Technology Letters*, Vol. 14, No. 8, pp. 1193-1195, August 2002.
52. M. N. Petersen, Z. Pan, S. Lee, S. A. Havstad, and A. E. Willner, "On-line chromatic dispersion monitoring and compensation using a single in-band subcarrier tone," *IEEE Photonics Technology Letters*, Vol. 14, No. 4, pp. 570-572, April 2002.
53. Y. W. Song, Z. Pan, D. S. Starodubov, V. Grubsky, E. Salik, S. A. Havstad, Y. Xie, A. E. Willner, and J. Feinberg, "All-fiber WDM optical crossconnect using ultrastrong widely tunable FBGs," *IEEE Photonics Technology Letters*, Vol. 13, No. 10, pp.1103-1105, October 2001.
54. Y. Xie, Z. Pan, A. E. Willner, E. Salik, V. Grubsky, D. Starodubov, and J. Feinberg, "Spectrally-efficient L-C band EDFA having a seamless inter-band channel region using sampled FBGs," *IEEE Photonics Technology Letters*, Vol. 13, No. 5, pp. 436-438, May 2001.

55. Y. Xie, S. Lee, Z. Pan, J. -X. Cai, A. E. Willner, V. Grubsky, D. S. Starodubov, E. Salik, and J. Feinberg, "Tunable Compensation of the Dispersion Slope Mismatch in Dispersion-Managed Systems using a Sampled Nonlinearly-Chirped FBG," *IEEE Photonics Technology Letters*, Vol. 12, No. 10, pp. 1417-1419, October, 2000.
56. Z. Pan, J. Q. Yang, Y. B. Ye, H. Y. Zhang, Y. L. Guo, and B. K. Zhou, "Programmable Wide Band Wavelength Tuning External-Cavity Semiconductor Laser," *ACTA Optica Sinica*, Vol. 19, No. 2, pp. 221-225, 1999.
57. W. L. Chen, H. Y. Zhang, Z. Pan, Y. L. Guo, and B. K. Zhou, "Study on Wavelength Allocation Algorithm and Optimization of WDM all Optical networks," *Journal Of Tsinghua University*, Vol.38, No.9, 1998.
58. Q. M. Dong, Z. Pan, H. Y. Zhang, J. Q. Yang, and B. K. Zhou, "High Power External Cavity Single Mode Laser Diodes," *Chinese Journal of Lasers*, Vol. A25, No.7, pp. 584-586, 1998.
59. Z. Pan, J. Q. Yang, Q. M. Dong, H. Y. Zhang, Y. L. Guo, and B. K. Zhou, "External-Cavity Semiconductor Laser with Wide Piezoelectric Tuning Range," *Chinese Journal of Lasers*, Vol. A25, No.6, pp. 485-489, 1998.
60. J. Q. Yang, Z. Pan, H. Y. Zhang, Y. L. Guo, Q. M. Dong, and B. K. Zhou, "All-Optical Wavelength Conversion Techniques," *Infrared and Laser Engineering*, Vol.26, No.5, 1997.
61. Z. Pan, H. Y. Zhang, Y. L. Guo, and B. K. Zhou, "Photonic Techniques for the Antennas Application," *Lasers & Infrared*, Vol. 27, No.4, 1997.
62. H. Y. Zhang, Z. Pan, J. Q. Yang, and B. K. Zhou, "Tunable Single-Mode Narrow-Linewidth External-Cavity Semiconductor Lasers," *Physics*, Vol.24, No.17, 1995.
63. S. Z. Xie, S. H. Huang, D. M. Huang, B. Sun, X. M. Liu, F. H. Liu, Z. Pan, H. F. Sun, H. Y. Zhang, and B. K. Zhou, "Study on 1540nm 4×622 Mb/s HD-WDM Optical Emitter," *High Technology Letters*, pp.18-20, Vol.3, No.3, Mar. 1993.

CONFERENCE PROCEEDINGS:

1. Y. Zhang, Y. Ren, Z. Wang, B. Liu, H. Zhang, S-A. Li, Y. Fang, H. Huang, C. Bao, Z. Pan, and Y. Yue, "Joint OSNR, Skew, ROF Monitoring of Coherent Channel using Eye Diagram Measurement and Deep Learning," *Conference on Lasers and Electro-Optics (CLEO)'19*, Paper JTh2A.80, San Jose, California, May 2019.
2. Y. Fang, C. Bao, Z. Wang, Y. Liu, L. Zhang, S.-A. Li, Y. Zhang, H. Huang, Y. Ren, Z. Pan, and Y. Yue "Octave-spanning Flattened Dispersive Slot Waveguide for On-chip Chirped Pulse Amplification," *Asia Communications and Photonics Conference (ACP) 2018*, 26-29 Oct 2018, Hangzhou, China.
3. Y. Weng, X. He, J. Wang, and Z. Pan, "Mode-Dependent Loss Mitigation Scheme for PDM-64QAM Few-Mode Fiber Space-Division-Multiplexing Systems via STBC-MIMO Equalizer," *Conference on Lasers and Electro-Optics (CLEO)'17*, Paper JTh2A.66, San Jose, California, May 2017.
4. Y. Weng, X. He, J. Wang, and Z. Pan, "Rigorous study of low-complexity adaptive space-time block-coded MIMO receivers in high-speed mode-multiplexed fiber-optic transmission links using few-mode fibers," *SPIE OPTO, Next-Generation Optical Communication: Components, Sub-Systems, and Systems VI*, Paper 10130-16, San Francisco, February 2017.
5. Y. Weng, X. He, J. Wang, and Z. Pan, "Efficient Adaptive Filtering Techniques using Hybrid RLS-LMS Algorithm for Channel Equalization in Optical Few-Mode Fiber Communication Systems," *29th Annual Conference of the IEEE Photonics Society (IPC 2016)*, Paper WB2.2, Waikoloa, Hawaii, October 2-6, 2016.

6. Y. Weng, T. Wang, and Z. Pan, "Intermodal Nonlinear Conversion of Orbital Angular Momentum via MMF Links," *29th Annual Conference of the IEEE Photonics Society (IPC 2016)*, Paper WE1.5, Waikoloa, Hawaii, October 2-6, 2016.
7. Z. Pan, Y. Weng, and X. He, "Adaptive Frequency-Domain Equalization and MIMO Signal Processing in Mode-Division Multiplexing Systems using Few-Mode Fibers," *OSA Advanced Photonics 2016 on Signal Processing in Photonics Communications (SPPCom)*, Paper SpW2G. 1, Vancouver, Canada, July 18-20, 2016.
8. Y. Weng, T. Wang, and Z. Pan, "Fast-Convergent Adaptive Frequency-Domain Recursive Least-Squares Algorithm with Reduced Complexity for MDM Transmission Systems using Optical Few-Mode Fibers," *Conference on Lasers and Electro-Optics (CLEO)'16*, Paper SW4F.6, San Jose, California, June 2016.
9. Y. Weng, T. Wang, and Z. Pan, "Optimization of Mode-Dependent Gain Efficiency based on Intermodal Raman Scattering for Few-Mode Distributed Raman Amplifier," *Conference on Lasers and Electro-Optics (CLEO)'16*, San Jose, Paper SW1P.5, California, June 2016.
10. Y. Weng, J. Wang, and Z. Pan, "Spectrally Efficient Nyquist-WDM PDM-64QAM Signal Generation using Interleaved DAC with Zero-Order Holding," *Conference on Optical Fiber Communication (OFC)'16*, Paper Th2A.34, Anaheim, California, March 2016.
11. Y. Weng, X. He, and Z. Pan, "Performance analysis of low-complexity adaptive frequency-domain equalization and MIMO signal processing for compensation of differential mode group delay in mode-division multiplexing communication systems using few-mode fibers," *SPIE OPTO, Next-Generation Optical Communication: Components, Sub-Systems, and Systems V*, Paper 9774-10, San Francisco, February 2016.
12. Y. Weng, J. Wang, and Z. Pan, "Comparison of advanced DSP techniques for spectrally efficient Nyquist-WDM signal generation using digital FIR filters at transmitters based on higher-order modulation formats," *SPIE OPTO, Optical Metro Networks and Short-Haul Systems VIII*, Paper 9773-4, San Francisco, February 2016.
13. Y. Weng, and Z. Pan, "An efficient scheme of intermodal distributed Raman amplification using tailored doping profiles in spatial-division multiplexed coherent fiber-optic transmission systems," *SPIE OPTO, Optical Components and Materials XIII*, Paper 9744-20, San Francisco, February 2016.
14. Y. Weng, E. Ip, Z. Pan, and T. Wang, "Few-Mode Distributed Optical Fiber Sensors," *Advanced Photonics for Communications, Optical Sensors*, Boston, July 2015.
15. Y. Weng, and Z. Pan, "Orbital-Angular-Momentum-based Image Sensor using High Resolution Photoacoustic Tomography," *Advanced Photonics for Communications, Optical Sensors*, Boston, July 2015.
16. Z. Pan, J. Wang, and Y. Weng, "Digital Signal Processing Techniques in Nyquist-WDM Transmission Systems," Invited paper, *International Conference on Optical Communications and Networks (ICOON'15)*, Nanjing, July 2015.
17. Z. Pan, J. Wang, and Y. Weng, "Investigation of Digital-to-Analog Converter (DAC) in Digital Nyquist-WDM Transmission Systems," Invited paper, *the 8th International Photonics and Optoelectronics Meetings (POEM 2015)*, Wuhan, June 2015.
18. Y. Weng, Z. Pan, and T. Wang, "Biomedical Photoacoustic Imaging Sensor based on Orbital Angular Momentum Multiplexing," *Photonics North*, Ottawa, Canada, June 2015.
19. Y. Weng, E. Ip, Z. Pan, and T. Wang, "Distributed Temperature and Strain Sensing using Spontaneous Brillouin Scattering in Optical Few-Mode Fibers," *Conference on Lasers and Electro-Optics (CLEO)'15*, Paper SM2O.5, San Jose, California, May 2015.

20. Xuan He, Bo Zhang, Dan Puvay, Rob Lofland, Massimiliano Salsi, Qiang Wang, Jason O'neil, Yang Yue, Jon Anderson, and Z. Pan, "Design of 100G PDM-QPSK Unrepeated Transmission Systems with EDFA Only Amplification," *Conference on Lasers and Electro-Optics (CLEO)'15*, Paper SF2K.3, San Jose, California, May 2015.
21. Y. Weng, X. He, J. Wang, and Z. Pan, "All-Optical Ultrafast Wavelength and Mode Converter Based on Inter-Modal Nonlinear Wave Mixing in Few-Mode Fibers," *Conference on Lasers and Electro-Optics (CLEO)'15*, Paper STh1O.7, San Jose, California, May 2015.
22. Z. Pan, Y. Weng, and X. He, "Investigation of the Nonlinearity in Few-Mode Fibers," Invited paper, *13th International Conference on Optical Communications and Networks (ICOON'14)*, Paper S42.1, Soochow, November 2014.
23. Y. Weng, X. He, J. Wang, B. Zhu, and Z. Pan "Mode and Wavelength Conversion Based on Inter-Modal Four-Wave Mixing in a Highly Nonlinear Few-Mode Fiber," *Advanced Photonics for Communications 2014, Signal Processing in Photonics Communications (SPPCom)*, Paper SW2C.2, San Diego, July 2014.
24. X. He, Y. Weng and Z. Pan, "Fast Convergence Single-Stage Adaptive Frequency Domain Equalizer in Few Mode Fiber Transmission Systems," *Conference on Lasers and Electro-Optics (CLEO)'14*, Paper STu3J.3, San Jose, June 2014.
25. Y. Weng, X. He, J. Wang, and Z. Pan, "Theoretical Analysis and Numerical Simulation of Inter-Modal Four-Wave-Mixing in Few Mode Fibers," *23rd IEEE Annual Wireless & Optical Communications Conference (WOCC)'14*, Paper O3.4, New Jersey, May 2014.
26. J. Wang, X. Jiang, Y. Weng, X. He, and Z. Pan, "Non-Data-Aided Chromatic Dispersion Estimation for Nyquist Spectrally Shaped Fiber Transmission Systems," *23rd IEEE Annual Wireless & Optical Communications Conference (WOCC)'14*, Paper O1.1, New Jersey, May 2014.
27. Z. Pan, X. He, and Y. Weng, "Frequency Domain Equalizer in Few-Mode Fiber Space-Division-Multiplexing Systems," Invited paper, *23rd IEEE Annual Wireless & Optical Communications Conference (WOCC)'14*, Paper O3.1, New Jersey, May 2014.
28. X. He, B. Zhang, R. Lofland, Y. Yue, J. O'Neil, T. Schmidt, J. Anderson, and Z. Pan, "Design of Dynamic Range Enhanced Colorless Reception Systems with Coherent Balanced Receiver," *Conference on Optical Fiber Communication (OFC)'14*, Paper Th2A.25, San Francisco, California, March 2014.
29. X. He, Y. Weng, and Z. Pan, "Noise Power Directed Adaptive Frequency Domain Least Mean Square Algorithm with Fast Convergence for DMGD Compensation in Few-Mode Fiber Transmission Systems," *Conference on Optical Fiber Communication (OFC)'14*, San Francisco, Paper Th3E.1, California, March 2014.
30. Z. Pan, X. He, and Y. Weng, "Hardware Efficient Frequency Domain Equalization in Few-Mode Fiber Coherent Transmission Systems," Invited paper, *SPIE Photonics West, OPTO: Next-Generation Optical Communication: Components, Sub-Systems, and Systems III*, Paper 9009-5, San Francisco, California, February 2014.
31. X. He, X. Zhou, Y. Weng, and Z. Pan, "Low Complexity Single-Stage Adaptive Frequency Domain Equalizer for SDM Systems using Few Mode Fibers," *the Advanced Photonics 2013 Congress: Signal Processing in Photonics Communications (SPPCom)*, Paper SPT4D.2, Rio Grande, Puerto Rico, July 2013.
32. X. He, X. Zhou, J. Wang, Y. Weng, and Z. Pan, "A Fast Convergence Frequency Domain Least Mean Square Algorithm for Compensation of Differential Mode Group Delay in Few Mode Fibers," *Conference on Optical Fiber Communication (OFC)'13*, Paper OM2C.4, Anaheim, CA, March 2013.

33. J. Wang, C. Xie, and Z. Pan, "Reducing Equalizer Complexity in Coherent Receivers for Nyquist Spectrally Shaped Systems with Matched Filters," *Conference on Optical Fiber Communication (OFC)'13*, Paper OTu2I.3, Anaheim, CA, March 2013.
34. X. He, J. Wang, and Z. Pan "Multi-Stage Electrical PMD Compensator in Digital Coherent Receivers for Higher-Order PMD Mitigation," *Conference on Lasers and Electro-Optics (CLEO)'12*, Paper JTh2A.118, CA, May 2012.
35. J. Wang, C. Xie, and Z. Pan "Generation of Spectrally Efficient Nyquist-WDM QPSK Signals using DSP Techniques at Transmitter," *Conference on Optical Fiber Communication (OFC)'12*, Paper OM3H.5, Los Angeles, CA, March 2012.
36. J. Wang, X. Jiang, X. He, and Z. Pan, "Ultra-wide Range In-service Chromatic Dispersion Measurement using Coherent Detection and Digital Signal Processing," *SPIE/OSA/IEEE Asia Communications and Photonics (ACP)'11*, Paper 8309-55, Shanghai, China, November 2011.
37. J. Wang, X. He, K. Gao, L. Myers, C. Xie, and Z. Pan, "8 × 400-Gbit/s PDM-QPSK with 100 GHz Channel Spacing Over 2000km Transmission Using MAP Detection," *Conference on Lasers and Electro-Optics (CLEO)'11*, Paper CThH3, MA, May 2011.
38. J. Wang, X. He, K. Gao, and Z. Pan, "Frequency Domain PMD Monitoring and Compensation in High-Speed Coherent Systems with Digital Signal Processing," *Conference on Lasers and Electro-Optics (CLEO)'11*, Paper CThX1, MA, May 2011.
39. J. Wang, K. Gao, L. Yang, X. He, and Z. Pan "Comparison between MZI and Single Phase Modulator for Generating 112-Gbit/s PDM-QPSK Signal," *Asia Communications and Photonics Conference and Exhibition (ACP)'10*, Paper P16, Shanghai, China, December 2010.
40. K. Gao, J. Wang, L. Yang, X. He, D. Peterson, and Z. Pan "Local Oscillator Linewidth Limitation on 16 QAM Coherent Optical Transmission System," *Conference on Lasers and Electro-Optics and Quantum Electronics and Laser Science Conference (CLEO/QELS)'10*, Paper JThE64, CA, May 2010.
41. K. Gao, Z. Fu, G. Wang, and Z. Pan "Dispersion Slope Compensation Using EDC and FEC in a 24x10 Gb/s 7800 km Fiber Transmission System," *Asia Optical Fiber Communication & Optoelectronic Exposition & Conference (AOE)'08*, Paper FD1, China, October, 2008.
42. Z. Fu, Q. Gan, K. Gao, G. Wang, Z. Pan, and F. J. Bartoli, "Numerical Design of Bidirectional Surface Plasmonic Polaritons Wave Coupler," *Conference on Lasers and Electro-Optics and Quantum Electronics and Laser Science Conference (CLEO/QELS)'08*, Paper JThA112, CA, May 2008.
43. P. Li, L. Liu, and Z. Pan, "The Remote Control and Measurement of Optical Experiment based on Labview over Internet," *2007 International Conference on Broadband Network & Multimedia Technology (IC-BNMT)*, Session 3.6: Optical Network and System, Paper ID16, September 2007.
44. Z. Pan, S. Chandel, and C. Yu, "160 GHz Optical Pulse Generation Using a 40 GHz Phase Modulator and Two Stages of Delayed MZ Interferometers," *Conference on Lasers and Electro-Optics (CLEO) '06*, Paper CFP2, Long Beach, CA, May 2006.
45. T. Luo, C. Yu, L.-S. Yan, S. Kumar, Z. Pan, A. E. Willner, and S. Yao, "Simple autocorrelation technique by tuning a DGD element and measuring a pulse's degree-of-polarization," *the 31st Europe Conference on Optical Communication (ECOC) '05*, Paper We2.3.3, Glasgow, United Kingdom, Sept. 2005.
46. C. Yu, Z. Pan, T. Luo, S. Kumar, L.-S. Yan, B. Zhang, L. Zhang, Y. Wang, M. Adler, and A. E. Willner "160-GHz Pulse Generator Using a 40-GHz Phase Modulator and PM Fiber," *Conference on Optical Fiber Communication (OFC) '05*, Paper OThR5, Anaheim, CA, March 2005.
47. C. Yu, T. Luo, B. Zhang, Z. Pan, M. Adler, Y. Wang, J. E. McGeehan and A. E. Willner, "3R Regeneration of a 40-Gbit/s Optical Signal by Optical Parametric Amplification in a Highly-

- Nonlinear Fiber,” *Conference on Optical Fiber Communication (OFC) '05*, Paper OTuO1, Anaheim, CA, March 2005.
48. T. Luo, Z. Pan, C. Yu, L.-S. Yan, S. Kumar, B. Zhang, M. Adler, A. E. Willner, and S. Yao, “Optical-Fiber-Based Autocorrelation Technique Using a Tunable DGD Element and Highly-Nonlinear Fiber,” *Conference on Optical Fiber Communication (OFC) '05*, Paper OFH6, Anaheim, CA, March 2005.
 49. Z. Pan, A. E. Willner, C. Yu, and Y. Wang, “Applications of Highly Nonlinear Fiber in WDM Communications Systems,” Invited paper, *OSA/SPIE Optics in the Southeast*, Paper D2, November 4-5, Charlotte, North Carolina, 2004.
 50. C. Yu, Z. Pan, T. Luo, Y. Wang, L. Christen, and A. E. Willner, “40-GHz RZ and CS-RZ Pulse Generation using a Phase Modulator and PM Fiber,” *the 30th Europe Conference on Optical Communication (ECOC) '04*, Proceedings Vol. 3, pp. 718-719, Sweden, September 2004.
 51. Y. Wang, C. Yu, T. Luo, L. Yan, Z. Pan, and A. E. Willner, “Tunable all-optical wavelength conversion and wavelength multicasting using orthogonally-polarized fiber FWM,” *Conference on Lasers and Electro-Optics (CLEO) '04*, Paper CFA6, San Francisco, CA, May 2004.
 52. C. Yu, L. Christen, T. Luo, Y. Wang, Z. Pan, L. Yan, and A. E. Willner, “All-Optical XOR Gate Based on Kerr Effect in Single Highly-Nonlinear Fiber,” *Conference on Lasers and Electro-Optics (CLEO) '04*, Paper CFA4, San Francisco, CA, May 2004.
 53. Y.-W. Song, R. Motaghian, Z. Pan, and A. E. Willner, “Accurate DOP Monitoring of Several WDM Channels for Simultaneous PMD Compensation,” *Conference on Lasers and Electro-Optics (CLEO) '04*, Paper CThLL1, San Francisco, CA, May 2004.
 54. C. Yu, L. Yan, T. Luo, Y. Wang, Z. Pan, and A. E. Willner, “Width-Tunable Optical Pulse Generation based on Four-Wave Mixing in Highly-Nonlinear Fiber,” *Conference on Lasers and Electro-Optics (CLEO) '04*, Paper CTuN4, San Francisco, CA, May 2004.
 55. T. Luo, C. Yu, L. Yan, Z. Pan, Y. Wang, Y. Song and A. E. Willner, “Polarization-Insensitive Single-Pump Optical Parametric Amplifier by Depolarization of the Pump,” *Conference on Optical Fiber Communication (OFC) '04*, Los Angeles, CA, February 2004, Paper TuC1.
 56. A. E. Willner, S. M. Motaghian Reza, Z. Pan, and Q. Yu, “Performance degradations and monitoring in optical networks,” *Asia-Pacific Optical and Wireless Communications (APOC) '03*, Proceedings of SPIE, Vol. 5282, Invited paper, November 2003.
 57. T. Luo, C. Yu, Z. Pan, Y. Wang, A. Yoel, and A. E. Willner, “Chromatic-Dispersion-Insensitive DGD Monitoring by Adding a Frequency-Shifted Carrier Along the Orthogonal Polarization State,” *the 16th Annual Meeting of the IEEE Lasers and Electro-Optics Society*, Tucson, AZ, October 2003.
 58. Y. Wang, Z. Pan, C. Yu, T. Luo, A. Sahin, and A. E. Willner, “A Multi-wavelength Optical Source based on Supercontinuum Generation Using Phase and Intensity Modulation at the Line-Spacing Rate,” *the 29th Europe Conference on Optical Communication (ECOC) '03*, Rimini, Italy, September 2003, paper Th3.2.4.
 59. C. Yu, Y. Wang, T. Luo, Z. Pan, R. Motaghian, A. B. Sahin, and A. E. Willner, “Chromatic-Dispersion-Insensitive PMD Monitoring for NRZ Data Based on Clock Power Measurement Using a Narrowband FBG Notch Filter,” *the 29th Europe Conference on Optical Communication (ECOC) '03*, Rimini, Italy, September 2003, paper Tu4.2.3.
 60. Y. W. Song, Z. Pan, Y. Arieli, S. M. R. Motaghian, S. A. Havstad, and A. E. Willner, “Enhanced Suppression of Nonlinearity-Induced Crosstalk in WDM Systems Using Optical Polarization-Shift-Keying,” *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO) '03*, Baltimore, MD, June 2003, paper CThQ2.

61. T. Luo, L.-S. Yan, Y. Q. Shi, Z. Pan, Y.W. Song, A. E. Willner, and S. Yao, "Dynamically Tunable Wavelength Spacing Multi-Wavelength Ring Laser Using a Programmable DGD Module as the Intra-Cavity Filter," *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO) '03*, Baltimore, MD, June 2003, paper CMY1.
62. T. Luo, Z. Pan, S. M. R. Motaghian, L. S. Yan, A. Sahin and A. E. Willner, "Chromatic-Dispersion-Insensitive PMD Monitoring Using Optical Off-Center Bandpass Filtering," *Conference on Optical Fiber Communication (OFC) '03*, Atlanta, GA, March 2003, paper ThY3.
63. Y. Wang, Z. Pan, A. Sahin, L.-S. Yan, C. Yu, and A. E. Willner, "In-line Chromatic Dispersion Monitoring Using Optically-added Phase-modulated In-band Tones For 10 Gb/s System," *Conference on Optical Fiber Communication (OFC) '03*, Atlanta, GA, March 2003, paper WP3.
64. Z. Pan, Y. Wang, Y. W. Song, S. M. R. Motaghian, S. Havstad, and A. E. Willner, "Monitoring Chromatic Dispersion and PMD Impairments in Optical Differential Phase-Shift-Keyed (DPSK) Systems," *Conference on Optical Fiber Communication (OFC) '03*, Atlanta, GA, March, 2003, paper WP1.
65. C. Yu, Z. Pan, Y. Wang, Y. W. Song, D. Gurkan, M. C. Hauer, D. Starodubov, and A. E. Willner, "Polarization-Insensitive Four-Wave Mixing Wavelength Conversion Using a Fiber Bragg Grating and a Faraday Rotator Mirror," *Conference on Optical Fiber Communication (OFC) '03*, Atlanta, GA, March 2003, paper WG2.
66. S. M. R. Motaghian, A. B. Sahin, J. E. McGeehan, Z. Pan, T. Luo, Y. W. Song, and A. E. Willner, "Polarization State Rotation Filtering for Single Sideband Generation and Carrier Suppression Using a Variable DGD Element," *Conference on Optical Fiber Communication (OFC) '03*, Atlanta, GA, March 2003, paper FM7.
67. Z. Pan, Y.W. Song, C. Yu, Y. Wang, J. Popelek, H. Li, Y. Li, and A. E. Willner, "Tunable chromatic dispersion compensation in a 4 x 40 Gbit/s system using sampled nonlinearly-chirped fiber Bragg gratings (NC-FBGs)," *the 28th Europe Conference on Optical Communication (ECOC) '02*, Copenhagen, Denmark, September 2002, paper 10.3.3.
68. Y.W. Song, Z. Pan, C. Yu, Y. Wang, J. Popelek, H. Li, Y. Li, and A. E. Willner, "Error-free tunable dispersion slope compensation in a 4 x 40 Gbit/s system using 3rd-order nonlinearly-chirped fiber Bragg gratings," *the 28th Europe Conference on Optical Communication (ECOC) '02*, Copenhagen, Denmark, September 2002, paper 06.1.2.
69. A. E. Willner and Z. Pan, "Implementing Subcarrier-Based Control in Optical Networking," Invited Paper, *IEEE MTTs International Microwave Symposium, Special Session on RF Photonic Technologies for Optical Networks*, paper 2491, Seattle, Washington, June 2-7, 2002.
70. Z. Pan, Q. Yu, Y. W. Song, and A. E. Willner, "40-Gb/s RZ 120-km transmission using a nonlinearly-chirped fiber Bragg grating (NL-FBG) for tunable dispersion compensation," *Conference on Optical Fiber Communication (OFC) '02*, Anaheim, CA, March 2002, paper ThGG50, pp. 682-683.
71. Y. W. Song, S. M. R. Motaghian, D. Starodubov, J. E. Rothenberg, Z. Pan, H. Li, R. Wilcox, J. Popelek, R. Caldwell, V. Grubsky and A. E. Willner, "Tunable dispersion slope compensation for WDM systems using a single non-channelized third-order-chirped FBG," *Conference on Optical Fiber Communication (OFC) '02*, Anaheim, CA, March 2002, paper ThAA4, pp. 580-581.
72. Z. Pan, Q. Yu, Y. Arieli, and A. E. Willner, "Fast XPM-induced polarization-state fluctuations in WDM systems and their mitigation," *Conference on Optical Fiber Communication (OFC) '02*, Anaheim, CA, March 2002, paper ThA7, pp. 379-381.
73. C. Yu, Q. Yu, Z. Pan, A. B. Sahin, and A. E. Willner, "Optical compensation of PMD-induced power fading for single sideband subcarrier-multiplexed systems," *Conference on Optical Fiber Communication (OFC) '02*, Anaheim, CA, March 2002, paper WQ5, pp. 304-305.

74. R. Motaghian, Y. W. Song, A. B. Sahin, Z. Pan, and A. E. Willner, "PMD monitoring in WDM systems for NRZ data using a chromatic-dispersion regenerated clock," *Conference on Optical Fiber Communication (OFC) '02*, Anaheim, CA, March 2002, paper WE5, pp. 200-202.
75. Q. Yu, L.-S. Yan, Z. Pan, and A. E. Willner, "Chromatic dispersion monitor for WDM systems using vestigial-sideband optical filtering," *Conference on Optical Fiber Communication (OFC) '02*, Anaheim, CA, March 2002, Invited paper: WE3, pp. 197-199.
76. Z. Pan, Y. Wang, C. Yu, T. Luo, A. B. Sahin, Q. Yu, and A. E. Willner, "Intra-bit polarization diversity modulation for PMD mitigation," *the 27th Europe Conference on Optical Communication (ECOC) '01*, Netherlands, Amsterdam, September 2001, paper We.p.37.
77. A. Sahin, L.-S. Yan, Q. Yu, M. Hauer, Z. Pan, A. E. Willner, "Dynamic Dispersion Slope Monitoring of Many WDM Channels Using Dispersion-Induced RF Clock Regeneration," *the 27th Europe Conference on Optical Communication (ECOC) '01*, Amsterdam, Netherlands, September 2001, paper We.p.35.
78. D. Gurkan, M. Hauer, A. Sahin, Z. Pan, A. E. Willner, K. R. Parameswaren, and M. M. Fejer, "Demonstration of multi-wavelength all-optical header recognition using a PPLN and optical correlators," *the 27th Europe Conference on Optical Communication (ECOC) '01*, Amsterdam, Netherlands, September 2001, Invited paper: We.B.2.5.
79. Z. Pan, Q. Yu, Y. Xie, Y. W. Song, and A. E. Willner, "Clock regenerating effect for NRZ data due to higher-order polarization mode dispersion," *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO) '01*, Baltimore, MD, May 2001, paper CFE2.
80. Y. W. Song, D. S. Starodubov, Z. Pan, S. A. Havstad, Y. Xie, A. E. Willner, and J. Feinberg "A tunable dispersion compensator with fixed bandwidth for WDM," *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO) '01*, Baltimore, MD, May 2001, paper CThO1.
81. Y. Xie, Q. Yu, L.-S. Yan, O. H. Adamczyk, Z. Pan, S. Lee, A. E. Willner, C. R. Menyuk, "Enhanced PMD mitigation using forward-error-correction coding and a first-order compensator," *Conference on Optical Fiber Communication (OFC) '01*, Anaheim, CA, March 2001, paper WAA2.
82. Z. Pan, Q. Yu, Y. Xie, S. A. Havstad, A. E. Willner, D. S. Starodubov, and J. Feinberg, "Chromatic dispersion monitoring and automated compensation for NRZ and RZ data using clock regeneration and fading without adding signaling," *Conference on Optical Fiber Communication (OFC) '01*, Anaheim, CA, March 2001, paper WH5.
83. M. N. Petersen, Z. Pan, S. Lee, S. A. Havstad, A. E. Willner, "Dispersion monitoring and compensation using a single in-band subcarrier tone," *Conference on Optical Fiber Communication (OFC) '01*, Anaheim, CA, March 2001, paper WH4.
84. Q. Yu, L.-S. Yan, S. Lee, Y. Xie, M. Hauer, Z. Pan, and A. E. Willner, "Enhanced Higher-Order PMD Compensation Using a Variable Time Delay Between Polarizations," *the 26th Europe Conference on Optical Communication (ECOC) '00*, Munich, Germany, September 2000, paper 4.2.7.
85. S. A. Havstad, Y. Xie, A. B. Sahin, Z. Pan, A. E. Willner, "Delayed self-heterodyne interferometer measurements of narrow linewidth fiber lasers," *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO) '00*, San Francisco, CA, May 2000, paper CWK30.
86. Y. Xie, Z. Pan, A. E. Willner, E. Salik, V. Grubsky, D. Starodubov, and J. Feinberg, "Spectrally-efficient L-C band EDFA having a continuous inter-band channel region using sampled FBGs," *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO) '00*, San Francisco, CA, May 2000, paper CWJ4.
87. Y. W. Song, Z. Pan, D. S. Starodubov, V. Grubsky, E. Salik, S. A. Havstad, Y. Xie, A. E. Willner, and J. Feinberg, "Efficient WDM Optical Crossconnect using Widely-Tunable FBGs," *Conference*

- on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO) '00*, San Francisco, CA, May 2000, paper CWD6.
88. Y. Xie, S. Lee, Z. Pan, J.-X. Cai, A. E. Willner, V. Grubsky, D. S. Starodubov, E. Salik, and J. Feinberg, "Tunable Compensation of the Dispersion Slope Mismatch in Dispersion-Managed Systems using a Sampled Nonlinearly-Chirped FBG," *Conference on Optical Fiber Communication (OFC) '00*, Baltimore, MD, March 2000, paper ThS2.
 89. Z. Pan, Y. Xie, S. Lee, A. E. Willner, V. Grubsky, D. S. Starodubov, and J. Feinberg, "Chirp-free tunable PMD compensation using Hi-Bi nonlinearly-chirped FBGs in a dual-pass configuration," *Conference on Optical Fiber Communication (OFC) '00*, Baltimore, MD, March 2000, paper ThH2.
 90. H. Y. Zhang, Y. L. Guo, Z. Pan, and W. L. Chen, "The Key Components and Technologies for All Optical Network," *Workshop on Optical Interconnections and Optical Switch for 863 Projects*, Beijing, 1998.
 91. H. Y. Zhang, W. L. Chen, Y. L. Guo, Z. Pan, L. Zong, and B. K. Zhou, "Recent Development of All Optical Networks," *the Conference of Opto-Electronics Technologies*, Huangshan, 1997.
 92. W. L. Chen, H. Y. Zhang, Z. Pan, Y. L. Guo, and B. K. Zhou, "The Wavelength Allocation Study in Static Routing WDM Optical Networks," *Proceedings of the Eighth National Conference on Optical Fiber Communications*, Wuhan, 1997.
 93. Z. Pan, H. Y. Zhang, J. Q. Yang, J. H. Chen, Z. M. Zhu, and B. K. Zhou, "Programmable Tuning External Cavity Laser Diode," *SPIE Proceedings*, vol. 2482, 1995.
 94. J. Q. Yang, H. Y. Zhang, Z. Pan, J. H. Chen, Z. M. Zhu, and B. K. Zhou, "High Precision Temperature Controller," *SPIE Proceedings*, vol. 2475, 1995.
 95. H. Y. Zhang, Y. J. Chai, B. Sun, Z. Pan, H. F. Li, J. Q. Yang, and B. K. Zhou, "Frequency Stabilization of Tunable Narrow Linewidth External-Cavity Semiconductor Lasers and Frequency Locking of Multiple Laser Sources," *Annual Meeting of China Optic Society*, Beijing, April, 1995.
 96. Z. Pan, H. Y. Zhang, J. Q. Yang, and B. K. Zhou, "Computer Controlled External Cavity Semiconductor Lasers," *Annual Meeting of Optoelectronic Devices and Integrated Technology*, Hangzhou, April, 1994.
 97. S. Z. Xie, S. H. Huang, F. H. Liu, D. M. Huang, B. Sun, Z. Pan, H. F. Sun, and B. K. Zhou, "40 km 4x 622 Mb/s IM-DD WDM Optical Fiber Transmission Experiments," *Proceedings of the Sixth National Conference on Optical Fiber Communications*, Beijing, October, 1993.