

Full Curriculum Vitae (Jian Wang)

Contact Information

Name: Jian Wang

Address: Room B207

Wuhan National Laboratory for Optoelectronics,
Huazhong University of Science and Technology,
Luoyu Road 1037, Wuhan 430074, Hubei, China

Phone: 86-18086046606

E-mail: jwang@hust.edu.cn



Education & Employment

- Professor, Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan, Hubei, China (Dec, 2012 – Present)
- Assistant Director, Wuhan National Laboratory for Optoelectronics, Wuhan, Hubei, China (2013 – Present)
- Assistant Director, Department of Optoelectronic Devices & Integration, Wuhan National Laboratory for Optoelectronics, Wuhan, Hubei, China (Feb, 2012 – Present)
- Associate Professor, Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan, Hubei, China (Nov, 2010 – Nov, 2012)
- Postdoctoral Research Associate, Department of Electrical Engineering, University of Southern California, Los Angeles, California, USA (Jan, 2009 – Jun, 2012)
- Lecturer, Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan, Hubei, China (Jul, 2008 – Jan, 2009)
- Ph.D., Physical Electronics, College of Optoelectronic Science and Engineering, Huazhong University of Science and Technology, Wuhan, Hubei, China (Sep, 2003 – Jun, 2008)
- B.Sc., Optical Information Science and Technology, College of Optoelectronic Science and Engineering, Huazhong University of Science and Technology, Wuhan, Hubei, China (Sep, 1999 – Jul, 2003)
Overall GPA: >91 (full mark: 100) (No.1 among 157 students)

Teaching Activities

- Sep, 2011 – Dec, 2011, “Applied Optics”
- Feb, 2012 – Jul, 2012, “Signals and Systems”
- Sep, 2012 – Dec, 2012, “Applied Optics”
- Feb, 2013 – Jul, 2013, “Signals and Systems”
- Sep, 2013 – Dec, 2013, “Applied Optics”
- Feb, 2014 – Jul, 2014, “Signals and Systems”
- Sep, 2014 – Dec, 2014, “Applied Optics”
- Feb, 2015 – Jul, 2015, “Signals and Systems”

Professional Activities

- Member of the Institute of Electrical and Electronics Engineers (IEEE)
- Member of the Optical Society (OSA)
- Member of the International Society for Optical Engineering (SPIE)
- Member of the Chinese Optical Society (COS)
- Guest Editor, A Special Issue on High-Speed Optical Transmission and Processing, Frontiers of Optoelectronics, March 2013, Volume 6, Issue 1, pp 1-2

- Guest Editor, A special issue on Information Optoelectronics: Devices, Technologies and Applications, *Frontiers of Optoelectronics*, November 2014, Volume 7, Issue 3, pp 263-264
- Local organizing committee chair of OEDI2014 and POEM2015 (OSA Topical Meeting)
- Subcommittee co-chair of ICOCN2014 and ICOCN2015
- Chair of OAM workshops in OEDI2014 and ACP2014
- Session Chair of ICAIT, POEM, ICOCN, META, Photonics Asia and ACP
- Technical Program Committee Member of ACP, ICAIT, ICOCN, ICCO, ICCN, LQCC, SOPO, WOCC, Photonics Asia, Chincom, WCSN, Photonics West and LOC
- Served as the frequent reviewers for *Scientific Reports*, *Optics Letters*, *Optics Express*, *Optica*, *Applied Optics*, *Optical Materials Express*, *Journal of the Optical Society of America B*, *Journal of Lightwave Technology*, *Journal of Optical Communications and Networking*, *IEEE Journal of Selected Topics in Quantum Electronics*, *IEEE Photonics Technology Letters*, *IEEE Journal of Quantum Electronics*, *IEEE Photonics Journal*, *Optics Communications*, *Journal of Optics A: Pure and Applied Optics*, *Journal of Physics B: Atomic, Molecular & Optical Physics*, *IET Circuits, Devices & Systems*, *Optical Engineering*, *Optica Applicata*, *Information Technology Research Journal*, *Journal of Engineering and Computer Innovations*, *Frontiers of Optoelectronics*

Awards and Honors

- The First Prize of Hubei Natural Science (4th co-author) (Dec, 2013)
- Award for Innovation and Entrepreneurship Talent in Hubei Province (2013)
- Hubei Youth Science and Technology Award (Oct, 2013)
- National Science Foundation for Excellent Young Scholars (Aug, 2012)
- New Century Excellent Talents in University of Ministry of Education of China (Nov, 2011)
- Young Academic Awards in Huazhong University of Science and Technology (Sep, 2011)
- Young Scholar Post in the Central Area of China (Jan, 2011)
- National Excellent Doctoral Dissertation Award nomination (Nov, 2010)
- Natural Science Award of Ministry of Education of China (2nd class) (2nd co-author) (Jan, 2010)
- Excellent Doctoral Dissertation Award in Hubei Province of China (Dec, 2009)
- IEEE Student Travel Grants (Feb, 2008 and Sep, 2008)
- Important Achievement of Chinese Optics, Laser & Optoelectronics Progress (2006, 2007, 2008)
- "Optical Scholarship of Daheng Wang" (College Student Award), Chinese Optical Society (Nov, 2007)
- Award for the "Top 10 of Science and Technology" in Huazhong University of Science and Technology (2008)
- Award for the "Top 10 of Science and Technology" (#1 rank) in Huazhong University of Science and Technology (2007)
- Major Scientific and Technological Achievements in Hubei Province of China (4th co-author) (Apr, 2006)
- Award for Excellent Scientific Payoffs in Hubei Province of China (2004-2005)
- First-Rate Scholarship for Academic Excellence in Huazhong University of Science and Technology (2003-2005)
- Award for Outstanding Undergraduate Student in Hubei Province of China (2002-2003)
- National First-Rate Scholarship of China (2001-2002)
- Award for Outstanding Undergraduate Student in Huazhong University of Science and Technology (1999-2003)

Research Areas

Innovations in photonic integrated devices and frontier technologies for high-speed optical communications and optical data processing, including:

- Design, modeling and fabrication of photonic integrated devices, such as silicon waveguides, lithium niobate waveguides, photonic crystal waveguides, plasmonic waveguides, microring resonators, metamaterials, graphene, specially-designed optical fibers, etc.
- Frontier technologies for high-speed optical communications, such as space-division multiplexing (SDM), mode-division multiplexing (MDM), optical communications using orbital angular momentum (OAM), etc.
- Frontier technologies for high-speed optical data processing, such as optical switching, optical logic/computing, optical format conversion, optical regeneration, optical data exchange, etc.

Research Projects

➤ *Projects in China*

- [1] **National Basic Research Program of China (973 Program):** “Research into Optical Communications Systems Using Orbital Angular Momentum (OAM) (Grant No. 2014CB340004) (Jan, 2014 – Dec, 2018),” **Principal Investigator (PI)**
- [2] **National Natural Science Foundation of China (NSFC):** “M-ary High-Speed Optical Signal Processing (Grant No. 61222502) (Jan, 2013 – Dec, 2015),” **PI**
- [3] **National Natural Science Foundation of China (NSFC):** “Research into the Basic Theories and Key Technologies of Information Manipulation using Orbital Angular Momentum (Grant No. 11274131) (Jan, 2013 – Dec, 2016),” **PI**
- [4] **Huawei Innovation Research Program:** “Novel High-Speed Large-Capacity All-Optical Switching Techniques for WDM+OTDM Systems (Grant No. IRP-2011-01-22) (Apr, 2012 – Mar, 2013),” **PI**
- [5] **Program for New Century Excellent Talents in University:** “Research into the New Mechanism and Novel Technique of High-Speed All-Optical Coding/Decoding for Advanced Modulation Formats (Grant No. NCET-11-0182) (Jan, 2012 – Dec, 2014),” **PI**
- [6] **Natural Science Foundation of Hubei Province of China:** “Research into the New Phenomena and Novel Techniques of All-Optical Encryption and Decryption Based on Ultrafast Nonlinear Processes (Grant No. 2011CDB032) (Jan, 2012 – Dec, 2013),” **PI**
- [7] **Independent Innovation Foundation of Huazhong University of Science and Technology:** “Research into the New Mechanism and Novel Technique of Photonic Signal Processing Using Orbital Angular Momentum (Jan, 2012 – Dec, 2012),” **PI**
- [8] **National Natural Science Foundation of China (NSFC):** “Research into the New Mechanism and Novel Technique of High-Speed All-Optical Information Swapping Based on Ultrafast Second-Order Nonlinearity (Grant No. 61077051) (Jan, 2011 – Dec, 2013),” **PI**
- [9] **Independent Innovation Foundation of Huazhong University of Science and Technology:** “Research into the Basic Theories and Experimental Demonstrations of Novel Optical Exchange Techniques Using Lithium Niobate Waveguides (Grant No. 2010MS035) (Oct, 2010 – Sep, 2012),” **PI**
- [10] **National High Technology Research and Development Program of China (863 Program):** “Research into the Lithium Niobate Waveguides Waveguides and Devices for the Photonic Generation of Ultrawideband (UWB) Microwave Signals (Grant No. 2009AA03Z410) (May, 2009 – Dec, 2011),” **Co-PI** (PI – Junqiang Sun)
- [11] **Natural Science Foundation of Hubei Province of China:** “Research into the New Phenomena and Novel Techniques of Optical Phase Erasure Based on Ultrafast Second-Order Nonlinearity (Grant No. 2008CDB313) (Jan, 2009 – Dec, 2010),” **PI**

➤ *Projects in USA*

- [1] **Defense Advanced Research Projects Agency (DARPA):** “The Ultimate Capacity-Achieving Receiver for Classical Optical Communications,” Information on a Photon (InPho) Program (Sep, 2010 – Aug, 2013), **Main Participant** (Co-PI: Alan E. Willner, University of Southern California, USA; PI: Sam Dolinar, Jet Propulsion Laboratory, USA)

- [2] **National Science Foundation (NSF):** “Center for Integrated Access Networks (CIAN),” Engineering Research Center (Sep, 2008 – Aug, 2013), **Main Participant** (Thrust Leader: Alan E. Willner, University of Southern California, USA; PI: Nasser Peyghambarian, Univ. of Arizona, USA)
- [3] **Defense Advanced Research Projects Agency (DARPA):** “Enhanced Performance & Functionality of Continuously-Tunable Optical Delays,” POPS Program (Grant No. FA8650-08-1-7820) (Jan, 2008 – Jun, 2012), **Main Participant** (PI – Alan E. Willner, University of Southern California, USA)
- [4] **Defense Advanced Research Projects Agency (DARPA):** “Large Tunable Delays in Fiber and On-Chip via Conversion/Dispersion,” Slow Light Program (Sep, 2008 – Aug, 2009), **Main Participant** (Co-PI: Alan E. Willner, University of Southern California, USA, PI – Alexander L. Gaeta, Cornell University, USA)

Publications (Partial List)

➤ Book Chapters

- [B1] **Jian Wang** and Alan E. Willner, "Optical signal processing: data exchange," in ***Design and Architectures for Digital Signal Processing***, Gustavo Ruiz and Juan A. Michell (Ed.), ISBN: 978-953-51-0874-0, InTech, 2013, DOI: 10.5772/52205.
- [B2] **Jian Wang**, Miles J. Padgett, Siddharth Ramachandran, Martin P. J. Lavery, Hao Huang, Yang Yue, Yan Yan, Nenad Bozinovic, Steven E. Golowich, Alan E. Willner, **Optical Fiber Telecommunications VI B**, Chapter 12, Ivan P. Kaminow, Tingye Li, and Alan E. Willner, editors, Elsevier Publishers, Academic Press, San Diego, March 2013, ISBN: 978-0-12-396960-6.

➤ Special Issue (Guest Editor)

- [S1] **Jian Wang**, “A special issue on High-Speed Optical Transmission and Processing,” ***Frontiers of Optoelectronics*** 6(1), 1-2 (2013).
- [S2] **Jian Wang**, “A special issue on Information Optoelectronics: Devices, Technologies and Applications,” ***Frontiers of Optoelectronics*** 7(3), 263-264 (2014).

➤ Review Articles

- [R1] **(Review) Jian Wang**, Alan E. Willner, “Review of robust data exchange using optical nonlinearities,” ***International Journal of Optics***, 2012, 575429 (2012).
- [R2] **(Review) Jian Wang**, “A review of recent progress in plasmon-assisted nanophotonic devices,” ***Frontiers of Optoelectronics*** 7(3), 320-337 (2014).

➤ Invited Papers

- [IP1] **(Invited Paper) Jian Wang***, “Integrated photonics for on-chip signaling,” ***SPIE Newsroom***. DOI: 10.1117/2.1201501.005654.
- [IP2] **(Invited Paper)** A. E. Willner, H. Huang, Y. Yan, Y. Ren, N. Ahmed, G. Xie, C. Bao, L. Li, Y. Cao, Z. Zhao, **Jian Wang**, M. P. J. Lavery, M. Tur, S. Ramachandran, A. F. Molisch, N. Ashrafi, and S. Ashrafi, “Optical communications using orbital angular momentum beams,” ***Advances in Optics and Photonics*** 7(1), 66-106 (2015).
- [IP3] **(Research Highlights)** Alan E. Willner, Yongxiong Ren, Hao Huang, Yan Yan, Nisar Ahmed, Guodong Xie, **Jian Wang**, Yang Yue, Martin P. J. Lavery, Moshe Tur, Miles J. Padgett, Siddharth Ramachandran, Nenad Bozinovic, and Long Li, “Optical communications using multiplexing of multiple orbital-angular-momentum beams,” ***IEEE Photonics Society Newsletter*** 12-17 (2014).
- [IP4] **(Invited)** Alan E. Willner, Omer F. Yilmaz, **Jian Wang**, Xiaoxia Wu, Antonella Bogoni, Lin Zhang, and Scott R. Nuccio, “Optically efficient nonlinear signal processing,” ***IEEE Journal of Selected Topics in Quantum Electronics*** 17(2), 320-332 (2010).

➤ Invited Talks

- [IT1] **(Invited Talk) Jian Wang***, Qizhen Sun, Junqiang Sun, Xinliang Zhang, and Dexiu Huang, “PPLN-based all-optical logic gate and format conversion for CSRZ signals,” in ***International Conference on Advancements in Information Technology (ICAIT2009)***, 2009.

- [IT2] **(Invited Talk) Jian Wang***, "A review of recent data grooming exchange," in *International Photonics and OptoElectronics Meetings (POEM2011)*, 2011.
- [IT3] **(Invited Talk) Jian Wang***, "Towards robust data exchange using optical nonlinearities," in *International Conference on Advancements in Information Technology (ICAIT2011)*, 2011.
- [IT4] **(Invited Talk) Jian Wang***, "Optical computing and coding/decoding of high-base numbers," in *Information Optoelectronics, Nanofabrication and Testing (IONT)*, OSA Technical Digest (online) (Optical Society of America, 2012), paper ITh2B.1.
- [IT5] **(Invited Talk) Jian Wang***, "Optical signal processing for multi-level modulation formats," in *Asia Communications and Photonics Conference (ACP2012)*, OSA Technical Digest (online) (Optical Society of America, 2012), paper AS2G.1.
- [IT6] **(Invited Talk) Jian Wang***, "Recent progress in ultrafast optical signal processing," in *Photonics Global Conference (PGC2012)*, paper Oral 2-1G-1.
- [IT7] **(Invited Talk) Jian Wang***, "Recent progress in orbital angular momentum communications," *IMT-2020(5G)2013*.
- [IT8] **(Invited Talk) Jian Wang***, "Recent progress of encryption/decryption in a high-dimensional state space," *FLAMN2013*.
- [IT9] **(Invited Talk) Jian Wang***, "Review of communications using orbital angular momentum," *ICOCN2013*.
- [IT10] **(Invited Talk) Jian Wang***, "Recent progress in optical communications with twisted light," *W-SOPO2013*.
- [IT11] **(Invited Talk) Jian Wang***, "Twisted light communications," *East Lake International Forum 2013*.
- [IT12] **(Invited Talk) Jian Wang***, "Using orbital angular momentum modes for optical transmission," *OFC2014*.
- [IT13] **(Invited Talk) Jian Wang***, "Recent progress in passive and active hybrid plasmonic devices," *META2014*.
- [IT14] **(Invited Talk) Jian Wang***, "Recent progress in orbital angular momentum communications and networking," *OEDI2014*.
- [IT15] **(Invited Talk) Jian Wang***, "Recent progress in on-chip photonic signal processing with advanced modulation formats," *SPPCom2014*.
- [IT16] **(Invited Talk) Jian Wang***, "M-ary high-speed optical signal processing," *CIOP2014*.
- [IT17] **(Invited Talk) Jian Wang***, "Recent progress in on-chip multiplexing/demultiplexing silicon photonic devices and technologies," *PIERS2014*.
- [IT18] **(Invited Talk) Jian Wang***, "Recent progress in on-chip signaling with ultra-compact integrated photonic devices," *PhotonicsAsia2014*.
- [IT19] **(Invited Talk) Jian Wang***, "Nanophotonic devices for on-chip optical signal transmission and processing," *ICOCN2014*.
- [IT20] **(Invited Talk) Jian Wang***, "Recent progress in orbital angular momentum (OAM) communication systems," *ACP2014*.
- [IT21] **(Invited Talk) Jian Wang***, "Research progress of on-chip OFDM m-QAM transmissions for photonic interconnects," *PIERS2014*.
- [IT22] **(Invited Talk) Jian Wang***, "Review of spectrally efficient optical communications using orbital angular momentum multiplexing," *ACP2014*.
- [IT23] **(Invited Talk) Jian Wang***, "Recent progress in M-ary optical signal processing using silicon photonic devices," *EMN2015*.
- [IT24] **(Invited Talk) Jian Wang***, "Recent progress in M-ary optical signal processing using silicon photonic devices," *EMN/Optoelectronics Meeting 2015*.
- [IT25] **(Invited Talk) Jian Wang***, "Review of metamaterials-based generation of orbital angular momentum (OAM) beams," *WCAM2015*.
- [IT26] **(Invited Talk) Jian Wang***, "Ultracompact microwave photonic signal processing using silicon nanophotonic devices," *ICOCN2015*.

- [IT27] **(Invited Talk)** Jian Wang*, "Recent progress in terabit-scale on-chip optical interconnects using photonic integrated circuits," **CIOP2015**.
- [IT28] **(Invited Talk)** Jian Wang*, "Recent Progress of Terahertz Communications using Orbital Angular Momentum (OAM)," **LOC2015**.
- [IT29] **(Keynote Talk)** Jian Wang*, "Twisted communications exploiting orbital angular momentum (OAM) of electromagnetic waves," **EEEIS2015**.
- [IT30] **(Invited Talk)** Jian Wang*, "Recent progress in manipulating light spatial structure using metasurfaces," **WCSM2016**.
- [IT31] **(Invited Talk)** Zahra Bakhtiari, Jian Wang, Xiaoxia Wu, Jeng-Yuan Yang, Scott R. Nuccio, Robert Hellwarth, and Alan E. Willner, "Demonstration of 10-40-Gbaud baud-rate-tunable optical generation of 16-QAM from a QPSK signal using a variable DGD element," in *Conference on Lasers and Electro-Optics (CLEO): Laser Applications to Photonic Applications*, OSA Technical Digest (CD) (Optical Society of America, 2011), paper CThX5.
- [IT32] **(Invited Talk)** Alan E. Willner and Jian Wang, "Optical communications using light beams carrying orbital angular momentum," in *Conference on Lasers and Electro-Optics (CLEO): Applications and Technology*, OSA Technical Digest (online) (Optical Society of America, 2012), paper JTU2K.1.
- [IT33] **(Invited Talk)** Antonella Bogoni, Xiaoxia Wu, Jian Wang, and Alan E. Willner, "Ultra-fast all optical signal processing and switching based on PPLN waveguides," in *Photonics in Switching*, OSA Technical Digest (CD) (Optical Society of America, 2010), paper PWA1.
- [IT34] **(Invited Talk)** Scott R. Nuccio, Omer F. Yilmaz, Xue Wang, Jian Wang, Xiaoxia Wu, and Alan E. Willner, "1.16 μ s Continuously Tunable Optical Delay of a 100-Gb/s DQPSK Signal Using Wavelength Conversion and Chromatic Dispersion in an HNLFF," in *Conference on Lasers and Electro-Optics (CLEO)*, OSA Technical Digest (CD) (Optical Society of America, 2010), paper CFJ2.

➤ **Postdeadline Papers**

- [P1] Jian Wang, Scott R. Nuccio, Xiaoxia Wu, Omer F. Yilmaz, Lin Zhang, Irfan Fazal, Jeng-Yuan Yang, Yang Yue, and Alan E. Willner, "40-Gbit/s optical data exchange between WDM channels using second-order nonlinearities in PPLN waveguides," in *Nonlinear Optics: Materials, Fundamentals and Applications*, OSA Technical Digest (CD) (Optical Society of America, 2009), paper PDPA1.
- [P2] Jian Wang, Scott R. Nuccio, Jeng-Yuan Yang, Hao Huang, Xiaoxia Wu, Antonella Bogoni, and Alan E. Willner, "50-Gbaud/s optical addition and dual-directional subtraction of quaternary base numbers using nonlinearities and 100-Gbit/s (D)QPSK signals," in *Photonics in Switching*, OSA Technical Digest (CD) (Optical Society of America, 2010), paper PDPWG2.
- [P3] Yun Long, Yong Zhang, Chengcheng Gui, Chao Li, Qi Yang, Jingsong Xia, and Jian Wang*, "Nonlinear microwave response of a bandstop microwave photonic filter based on a photonic crystal nanocavity," **POEM2014**, paper OF5A.2.
- [P4] Shuhui Li, Jian Wang*, Xuebin Zhang, Long Zhu, Chao Li, and Qi Yang, "Demonstration of simultaneous 1-to-34 multicasting of OFDM/OQAM 64-QAM signal," 2013 Asia Communications and Photonics Conference (ACP), Post-Deadline Paper AF2C.4.
- [P5] Chengcheng Gui, Yong Zhang, Jinsong Xia, and Jian Wang*, "Experimental performance evaluation of analog signal transmission in a photonic crystal ring resonator" **Proc. APC2014**, paper IT2A. 5 (2014).
- [P6] Yun Long, Yong Zhang, Chengcheng Gui, Chao Li, Qi Yang, Jinsong Xia, and Jian Wang*, "Nonlinear microwave response of a bandstop microwave photonic filter based on a photonic crystal nanocavity," in *International Photonics and OptoElectronics Meetings*, OSA Technical Digest (online) **POEM 2014** (Optical Society of America, 2014), paper OF5A.2.
- [P7] Yifan Zhao, Jing Du, Shuhui Li, and Jian Wang*, "Demonstration of a visible-light communication link employing high-base vector beam modulation/demodulation", **Proc. ACP2014**, postdeadline paper AF4B.8 (2014).

- [P8] Omer F. Yilmaz, Scott R. Nuccio, Zahra Bakhtiari, Xiaoxia Wu, **Jian Wang**, Lin Zhang, and Alan E. Willner, "Wavelength conversion and 9-Fold multicasting of a 21.4 Gbit/s DPSK data channel using supercontinuum generation," in *Nonlinear Optics: Materials, Fundamentals and Applications*, OSA Technical Digest (CD) (Optical Society of America, 2009), paper PDPA3.

➤ **Journal Papers (* Corresponding Author)**

- [J1] **Jian Wang**, Jeng-Yuan Yang, Irfan M. Fazal, Nisar Ahmed, Yan Yan, Hao Huang, Yongxiong Ren, Yang Yue, Samuel Dolinar, Moshe Tur, and Alan E. Willner, "Terabit free-space data transmission employing orbital angular momentum multiplexing," *Nature Photonics* 6(7), 488-496 (2012).
★ **Selected by Nature Photonics editors for press release, interview, and News & Views article.**
★ **#1 downloaded Nature Photonics article in late June and early July 2012.**
★ **Interviewed and reported by BBC News, NewScientist, PhysicsWorld, and Phys.Org in UK, ScienceDaily and IEEE Spectrum in USA, and ScienceNet in China.**
- [J2] Alan E. Willner*, **Jian Wang***, and Hao Huang, "A different angle on light communications," *Science* 337(6095), 655-656 (2012).
★ **Invited paper (applied physics perspective)**
- [J3] Chao Xiang, Chun-Kit Chan, and **Jian Wang***, "Proposal and numerical study of ultra-compact active hybrid plasmonic resonator for sub-wavelength lasing applications," *Scientific Reports*, 4, 3720 (2014).
- [J4] Shuhui Li and **Jian Wang***, "A compact trench-assisted multi-orbital-angular-momentum multi-ring fiber for ultrahigh-density space-division multiplexing (19 rings × 22 modes)," *Scientific Reports*, 4, 3853 (2014).
- [J5] Yun Long and **Jian Wang***, "Optically-controlled extinction ratio and Q-factor tunable silicon microring resonators based on optical forces," *Scientific Reports*, 4, 5409 (2014).
- [J6] Zhonglai Zhang and **Jian Wang***, "Long-range hybrid wedge plasmonic waveguide," *Scientific Reports*, 4, 6870 (2014).
- [J7] Long Zhu and **Jian Wang***, "Arbitrary manipulation of spatial amplitude and phase using phase-only spatial light modulators," *Scientific Reports* 4, 7441 (2014).
- [J8] Chengcheng Gui and **Jian Wang***, "Silicon-organic hybrid slot waveguide based three-input multicasted optical hexadecimal addition/subtraction," *Scientific Reports* 4, 7491 (2014).
- [J9] Jing Du and **Jian Wang***, "Design of on-chip N-fold orbital angular momentum multicasting using V-shaped antenna array," *Scientific Reports* 5, 9662 (2015).
- [J10] Shuhui Li and **Jian Wang***, "Adaptive power-controllable orbital angular momentum (OAM) multicasting," *Scientific Reports* 5, 9677 (2015).
- [J11] Jun Liu and **Jian Wang***, "Demonstration of polarization-insensitive spatial light modulation using a single polarization-sensitive spatial light modulator," accepted to be published on *Scientific Reports*, 2015.
- [J12] Chengcheng Gui and **Jian Wang***, "Wedge hybrid plasmonic THz waveguide with long propagation length and ultra-small deep-subwavelength mode area," accepted to be published on *Scientific Reports*, 2015.
- [J13] **Jian Wang**, Junqiang Sun, Chuanhong Luo, and Qizhen Sun, "Experimental demonstration of wavelength conversion between ps-pulses based on cascaded sum- and difference frequency generation (SFG+DFG) in LiNbO₃ waveguides," *Optics Express* 13(19), 7405-7414 (2005).
- [J14] **Jian Wang**, Junqiang Sun, Qizhen Sun, Dalin Wang, and Dexiu Huang, "Proposal and simulation of all-optical NRZ-to-RZ format conversion using cascaded sum- and difference-frequency generation," *Optics Express* 15(2), 583-588 (2007).
- [J15] **Jian Wang**, Junqiang Sun, and Qizhen Sun, "Single-PPLN-based simultaneous half-adder, half-subtractor, and OR logic gate: proposal and simulation," *Optics Express* 15(4), 1690-1699 (2007).

- [J16] **Jian Wang**, Qizhen Sun, Junqiang Sun, and Weiwei Zhang, "All-optical UWB pulse generation using sum-frequency generation in a PPLN waveguide," *Optics Express* 17(5), 3521-3530 (2009).
- [J17] **Jian Wang**, Qizhen Sun, and Junqiang Sun, "All-optical 40 Gbit/s CSRZ-DPSK logic XOR gate and format conversion using four-wave mixing," *Optics Express* 17(15), 12555-12563 (2009).
- [J18] **Jian Wang**, Omer F. Yilmaz, Scott R. Nuccio, Xiaoxia Wu, and Alan E. Willner, "Orthogonal tributary channel exchange of 160-Gbit/s pol-muxed DPSK signal," *Optics Express* 18(16), 16995-17008 (2010).
- [J19] **Jian Wang**, Scott R. Nuccio, Hao Huang, Xue Wang, Jeng-Yuan Yang, and Alan E. Willner, "Optical data exchange of 100-Gbit/s DQPSK signals," *Optics Express* 18(23), 23740-23745 (2010).
- [J20] **Jian Wang**, Hao Huang, Xue Wang, Jeng-Yuan Yang, and Alan E. Willner, "Multi-channel 100-Gbit/s DQPSK data exchange using bidirectional degenerate four-wave mixing," *Optics Express* 19(4), 3332-3338 (2011).
- [J21] **Jian Wang**, Hao Huang, Xue Wang, Jeng-Yuan Yang, and Alan E. Willner, "Reconfigurable 2.3-Tbit/s DQPSK simultaneous add/drop, data exchange and equalization using double-pass LCoS and bidirectional HNLFF," *Optics Express* 19(19), 18246-18252 (2011).
- [J22] **Jian Wang**, Jeng-Yuan Yang, Hao Huang, and Alan E. Willner, "Three-input optical addition and subtraction of quaternary base numbers," *Optics Express* 21(1), 488-499 (2013).
- [J23] **Jian Wang**, Hongyan Fu, Dongyu Geng, and Alan E. Willner, "Single-PPLN-assisted wavelength-/time-selective switching/dropping/swapping for 100-GHz-spaced WDM signals," *Optics Express* 21(3), 3756-3774 (2013).
- [J24] Chengcheng Gui and **Jian Wang***, "Optical data exchange of m-QAM signals using a silicon-organic hybrid slot waveguide: proposal and simulation," *Optics Express* 22(20), 24796-24807 (2014).
- [J25] Chengcheng Gui, Chao Li, Qi Yang, and **Jian Wang***, "Demonstration of terabit-scale data transmission in silicon vertical slot waveguides," *Optics Express* 23(8), 9736-9745 (2015).
- [J26] Chengcheng Gui, Yong Zhang, Jing Du, Jinsong Xia, and **Jian Wang***, "Experimental demonstration of analog signal transmission in a silicon photonic crystal L3 resonator," accepted to be published on *Optics Express*, 2015.
- [J27] Yun Long and **Jian Wang***, "All-optical tuning of a nonlinear silicon microring assisted microwave photonic filter: theory and experiment," accepted to be published on *Optics Express*, 2015.
- [J28] Yun Long and **Jian Wang***, "Ultra-high peak rejection notch microwave photonic filter using a single silicon microring resonator," accepted to be published on *Optics Express*, 2015.
- [J29] **Jian Wang**, Junqiang Sun, and Qizhen Sun, "Experimental observation of a 1.5 μm band wavelength conversion and logic NOT gate at 40 Gbit/s based on sum-frequency generation," *Optics Letters* 31(11), 1711-1713 (2006).
- [J30] **Jian Wang**, Junqiang Sun, and Qizhen Sun, "Proposal for all-optical format conversion based on a periodically poled lithium niobate loop mirror," *Optics Letters* 32(11), 1477-1479 (2007).
- [J31] **Jian Wang**, Junqiang Sun, Qizhen Sun, Dalin Wang, Minjuan Zhou, Xinliang Zhang, Dexiu Huang, and M. M. Fejer, "Experimental observation of all-optical non-return-to-zero-to-return-to-zero format conversion based on cascaded second-order nonlinearity assisted by active mode-locking," *Optics Letters* 32(16), 2462-2464 (2007).
- [J32] **Jian Wang**, Junqiang Sun, Xinliang Zhang, Dexiu Huang, and M. M. Fejer, "Ultrafast all-optical three-input Boolean XOR operation for differential phase-shift keying signals using periodically poled lithium niobate," *Optics Letters* 33(13), 1419-1421 (2008).
- [J33] **Jian Wang**, Junqiang Sun, Xinliang Zhang, Dexiu Huang, and M. M. Fejer, "Optical phase erasure and its application to format conversion through cascaded second-order processes in periodically poled lithium niobate," *Optics Letters* 33(16), 1804-1806 (2008).

- [J34] **Jian Wang**, Scott R. Nuccio, Xiaoxia Wu, Omer F. Yilmaz, Lin Zhang, Irfan M. Fazal, Jeng-Yuan Yang, Yang Yue, and Alan E. Willner, "40 Gbit/s optical data exchange between wavelength-division-multiplexed channels using a periodically poled lithium niobate waveguide," *Optics Letters* 35(7), 1067-1069 (2010).
- [J35] **Jian Wang**, Zahra Bakhtiari, Scott R. Nuccio, Omer F. Yilmaz, Xiaoxia Wu, and Alan E. Willner, "Phase-transparent optical data exchange of 40 Gbit/s differential phase-shift keying signals," *Optics Letters* 35(17), 2979-2981 (2010).
- [J36] **Jian Wang**, Zahra Bakhtiari, Omer F. Yilmaz, Scott R. Nuccio, Xiaoxia Wu, and Alan E. Willner, "10 Gbit/s tributary channel exchange of 160 Gbit/s signals using periodically poled lithium niobate," *Optics Letters* 36(5), 630-632 (2011).
- [J37] **Jian Wang**, Scott R. Nuccio, Jeng-Yuan Yang, Xiaoxia Wu, Antonella Bogoni, and Alan E. Willner, "High-speed addition/subtraction/complement/doubling of quaternary numbers using optical nonlinearities and DQPSK signals," *Optics Letters* 37(7), 1139-1141 (2012).
- [J38] Zhe Zhao, **Jian Wang***, Shuhui Li, and Alan Willner, "Metamaterials-based broadband generation of orbital angular momentum carrying vector beams," *Optics Letters* 38(6), 932-934 (2013).
- [J39] Chao Li, Chengcheng Gui, Xi Xiao, Qi Yang, Shaohua Yu, **Jian Wang***, "On-chip all-optical wavelength conversion of multicarrier, multilevel modulation (OFDM m-QAM) signals using a silicon waveguide," *Optics Letters* 39(15), 4583-4586 (2014).
- [J40] Shuhui Li and **Jian Wang***, "Performance evaluation of analog signal transmission in an orbital angular momentum multiplexing system," *Optics Letters* 40(5), 760-763 (2015).
- [J41] Jing Du and **Jian Wang***, "Experimental performance evaluation of analog signal transmission in a silicon microring resonator," *Optics Letters* 40(7), 1181-1184 (2015).
- [J42] **Jian Wang**, Junqiang Sun, Qizhen Sun, Dalin Wang, Minjuan Zhou, Xinliang Zhang, Dexiu Huang, and M. M. Fejer, "All-optical format conversion using a periodically poled lithium niobate waveguide and a reflective semiconductor optical amplifier," *Applied Physics Letters* 91, 051107 (2007).
- [J43] **Jian Wang** and Qizhen Sun, "Theoretical analysis of power swapping in quadratic nonlinear medium," *Applied Physics Letters* 96, 081108 (2010).
- [J44] **Jian Wang**, Junqiang Sun, Xinliang Zhang, and Dexiu Huang, "All-optical tunable wavelength conversion with extinction ratio enhancement using periodically poled lithium niobate waveguides," *Journal of Lightwave Technology* 26(17), 3137-3148 (2008).
- [J45] **Jian Wang**, Jeng-yuan Yang, Xiaoxia Wu, and Alan E. Willner, "Optical hexadecimal coding/decoding using 16-QAM signal and FWM in HNLFs," *Journal of Lightwave Technology* 30(17), 2890-2900 (2012).
- [J46] **Jian Wang**, Junqiang Sun, Xinliang Zhang, Dexiu Huang, and M. M. Fejer, "All-optical format conversions using periodically poled lithium niobate waveguides," *IEEE Journal of Quantum Electronics* 45(2), 195-205 (2009).
- [J47] **Jian Wang**, Junqiang Sun, Xinliang Zhang, and Dexiu Huang, "All-optical ultrawideband pulse generation using cascaded periodically poled lithium niobate waveguides," *IEEE Journal of Quantum Electronics* 45(3), 292-299 (2009).
- [J48] **Jian Wang**, Junqiang Sun, J. R. Kurz, and M. M. Fejer, "Tunable wavelength conversion of ps-pulses exploiting cascaded sum- and difference frequency generation in a PPLN-fiber ring laser," *IEEE Photonics Technology Letters* 18(20), 2093-2095 (2006).
- [J49] **Jian Wang**, Junqiang Sun, and Qizhen Sun, "Proposal for all-optical switchable OR/XOR logic gates using sum-frequency generation," *IEEE Photonics Technology Letters* 19(8), 541-543 (2007).
- [J50] **Jian Wang**, Junqiang Sun, Qizhen Sun, Dalin Wang, Xinliang Zhang, Dexiu Huang, and M. M. Fejer, "PPLN-based flexible optical logic AND gate," *IEEE Photonics Technology Letters* 20(3), 211-213 (2008).
- [J51] **Jian Wang**, Junqiang Sun, Xinliang Zhang, and Dexiu Huang, "Proposal for PPLN-Based all-optical NRZ-to-CSRZ, RZ-to-CSRZ, NRZ-DPSK-to-CSRZ-DPSK, and RZ-DPSK-to-CSRZ-DPSK format conversions," *IEEE Photonics Technology Letters* 20(12), 1039-1041 (2008).

- [J52] **Jian Wang**, Junqiang Sun, "All-optical ultrawideband monocycle generation using quadratic nonlinear interaction seeded by dark pulses," *IEEE Photonics Technology Letters* 22(3), 140-142 (2010).
- [J53] **Jian Wang**, Junqiang Sun, Chuanhong Luo, and Qizhen Sun, "Flexible all-optical wavelength conversions of 1.57-ps pulses exploiting cascaded sum- and difference frequency generation (cSFG/DFG) in a PPLN waveguide," *Applied Physics B: Lasers and Optics* 83(4), 543-548 (2006).
- [J54] **Jian Wang**, Qizhen Sun, Junqiang Sun, and Zhefeng Hu, "PPLN-based all-optical 40 Gbit/s ODB/AMI/FSK wavelength conversion and FSK logic NOT gate," *Applied Physics B: Lasers and Optics* 96(1), 135-139 (2009).
- [J55] **Jian Wang**, Junqiang Sun, and Qizhen Sun, "Phase-erased wavelength/format conversion and demodulation of 40 Gbit/s DPSK assisted by periodically poled lithium niobate," *Applied Physics B: Lasers and Optics* 98(4), 831-838 (2010).
- [J56] **Jian Wang** and Qizhen Sun, "Nontransparency and optical phase erasure characteristic of four-wave mixing," *Applied Physics B: Lasers and Optics*, 98(4), 821-830 (2010).
- [J57] **Jian Wang**, Qizhen Sun, and Junqiang Sun, "Ultrafast all-optical logic AND gate for CSRZ signals using periodically poled lithium niobate," *Journal of the Optical Society of America B* 26(5), 951-958 (2009).
- [J58] **Jian Wang**, Junqiang Sun, Qizhen Sun, Xinliang Zhang, and Dexiu Huang, "Simple realization of all-optical high-speed (40, 80 and 160 Gbs⁻¹) XOR and OR logic gates using LiNbO₃ waveguides," *Journal of Optics A: Pure and Applied Optics* 9(10), 811-819 (2007).
- [J59] **Jian Wang**, Junqiang Sun, Xinliang Zhang, Xiuhua Yuan, and Dexiu Huang, "Experimental observation of tunable wavelength down- and up-conversions of ultra-short pulses in a periodically poled LiNbO₃ waveguide," *Optics Communications* 269(1), 179-187 (2007).
- [J60] **Jian Wang**, Junqiang Sun, Qizhen Sun, Xinliang Zhang, and Dexiu Huang, "All-optical dual-direction half-subtractor based on sum-frequency generation," *Optics Communications* 281(4), 788-792 (2008).
- [J61] **Jian Wang**, Junqiang Sun, Xinliang Zhang, Deming Liu, and Dexiu Huang, "Proposal and simulation for all-optical format conversion between differential phase-shift keying signals based on cascaded second-order nonlinearities," *Optics Communications* 281(19), 5019-5024 (2008).
- [J62] **Jian Wang**, Qizhen Sun, Junqiang Sun, and Xinliang Zhang, "Experimental demonstration on 40 Gbit/s all-optical multicasting logic XOR gate for NRZ-DPSK signals using four-wave mixing in highly nonlinear fiber," *Optics Communications* 282(13), 2615-2619 (2009).
- [J63] Chengcheng Gui and **Jian Wang***, "Elliptical-spiral photonic crystal fibers with wideband high birefringence, large nonlinearity, and low dispersion," *IEEE Photonics Journal* 4(6), 2152-2158 (2012).
- [J64] Chao Xiang and **Jian Wang***, "Long-range hybrid plasmonic slot waveguide," *IEEE Photonics Journal* 5(2), 4800311 (2013).
- [J65] Shuhui Li and **Jian Wang***, "Multi-orbital-angular-momentum multi-ring fiber for high-density space-division multiplexing," *IEEE Photonics Journal* 5(5), 7101007 (2013).
- [J66] Chengcheng Gui and **Jian Wang***, "Simultaneous optical half-adder and half-subtractor using a single-slot waveguide," *IEEE Photonics Journal* 5(5), 13810126 (2013).
- [J67] Weiwei Zhang, Junqiang Sun, **Jian Wang**, Xinliang Zhang, and Dexiu Huang, "Optical clock division based on dual-wavelength mode-locked semiconductor fiber ring laser," *Optics Express* 16(15), 11231-11236 (2008).
- [J68] Yang Yue, Lin Zhang, **Jian Wang**, Raymond G. Beausoleil, and Alan E. Willner, "Highly efficient nonlinearity reduction in silicon-on-insulator waveguides using vertical slots," *Optics Express* 18(21), 22061-22066 (2010).
- [J69] Xiaoxia Wu, Weiren Peng, Vahid Arbab, **Jian Wang**, Alan E. Willner, "Tunable optical wavelength conversion of OFDM signal using a periodically-poled lithium niobate waveguide," *Optics Express* 17(11), 9177-9182 (2009).

- [J70] Lin Zhang, Yang Yue, Yinying Xiao-Li, **Jian Wang**, Raymond G. Beausoleil, and Alan E. Willner, "Flat and low dispersion in highly nonlinear slot waveguides," *Optics Express* 18(12), 13187-13193 (2010).
- [J71] Kang Tan, Jing Shao, Junqiang Sun, and **Jian Wang**, "Photonic ultra-wideband pulse generation, hybrid modulation and dispersion-compensation-free transmission in multi-access communication systems," *Optics Express* 20(2), 1184-1201 (2012).
- [J72] Kang Tan, David Marpaung, Ravi Pant, Feng Gao, Enbang Li, **Jian Wang**, Duk-Yong Choi, Steve Madden, Barry Luther-Davies, Junqiang Sun, and Benjamin J. Eggleton, "Photonic-chip-based all-optical ultra-wideband pulse generation via XPM and birefringence in a chalcogenide waveguide," *Optics Express* 21(2), 2003-2011 (2013).
- [J73] Xiaoxia Wu, **Jian Wang**, Omer F. Yilmaz, Scott R. Nuccio, Antonella Bogoni, and Alan E. Willner, "Bit-rate-variable and order-switchable optical multiplexing of high-speed pseudorandom bit sequence using optical delays," *Optics Letters* 35(18), 3042-3044 (2010).
- [J74] Omer F. Yilmaz, **Jian Wang**, Salman Khaleghi, Xue Wang, Scott R. Nuccio, Xiaoxia Wu, and Alan E. Willner, "Preconversion phase modulation of input differential phase-shift-keying signals for wavelength conversion and multicasting applications using phase-modulated pumps," *Optics Letters* 36(5), 731-733 (2011).
- [J75] Yan Yan, **Jian Wang**, Lin Zhang, Jeng-Yuan Yang, Irfan M. Fazal, Nisar Ahmed, Bishara Shamee, Alan E. Willner, Kevin Birnbaum, and Sam Dolinar, "Fiber coupler for generating orbital angular momentum modes," *Optics Letters* 36(21), 4269-4271 (2011).
- [J76] Hao Huang, Xiaoxia Wu, **Jian Wang**, Jeng-Yuan Yang, Asher Voskoboinik, and Alan E. Willner, "Nondegenerate four-wave-mixing-based radio frequency up/downconversion using a parametric loop mirror," *Optics Letters* 36(23), 4593-4595 (2011).
- [J77] Yan Yan, Lin Zhang, **Jian Wang**, Jeng-Yuan Yang, Irfan M. Fazal, Nisar Ahmed, Alan E. Willner, and Samuel J. Dolinar, "Fiber structure to convert a Gaussian beam to higher-order optical orbital angular momentum modes," *Optics Letters* 37(16), 3294-3296 (2012).
- [J78] Irfan M. Fazal, Nisar Ahmed, **Jian Wang**, Jeng-Yuan Yang, Yan Yan, Bishara Shamee, Hao Huang, Yang Yue, Sam Dolinar, Moshe Tur, and Alan E. Willner, "2 Tbit/s free-space data transmission on two orthogonal orbital-angular-momentum beams each carrying 25 WDM channels," *Optics Letters* 37(22), 4753-4755 (2012).
- [J79] Scott R. Nuccio, Omer F. Yilmaz, Xue Wang, **Jian Wang**, Xiaoxia Wu, and Alan E. Willner, "Continuously tunable 1.16 μ s optical delay of 100 Gbit/s DQPSK and 50 Gbit/s DPSK signals using wavelength conversion and chromatic dispersion," *Optics Letters* 35(11), 1819-1821 (2010).
- ★ **Selected by editors as one of two papers for the May 2010 OSA Spotlight in Optics.**
- [J80] Jeng-Yuan Yang, Mohammad R. Chitgarha, Lin Zhang, **Jian Wang**, Loukas Paraschis, and Alan E. Willner, "Optical monitoring of PMD accumulation on a Pol-MUX phase-modulated signal using degree-of-polarization measurements," *Optics Letters* 36(16), 3215-3217 (2011).
- [J81] Ali Fard, Jeng-Yuan Yang, Brandon Buckley, **Jian Wang**, Mohammad R. Chitgarha, Lin Zhang, Alan E. Willner, and Bahram Jalali, "Time-stretch oscilloscope with dual-channel differential detection front end for monitoring of 100 Gb/s return-to-zero differential quadrature phase-shift keying data," *Optics Letters* 36(19), 3804-3806 (2011).
- [J82] Yang Yue, Hao Huang, Lin Zhang, **Jian Wang**, Jeng-Yuan Yang, Omer F. Yilmaz, Jacob S. Levy, Michal Lipson, and Alan E. Willner, "UWB monocycle pulse generation using two-photon absorption in a silicon waveguide," *Optics Letters* 37(4), 551-553 (2012).
- [J83] Xiaoxia Wu, Antonella Bogoni, Omer F. Yilmaz, Scott Nuccio, **Jian Wang**, and Alan E. Willner, "Eightfold 40–320 Gbit/s phase-coherent multiplexing and 320–40 Gbit/s demultiplexing using highly nonlinear fibers," *Optics Letters* 35(11), 1896-1898 (2010).
- [J84] Scott R. Nuccio, Omer F. Yilmaz, Xue Wang, Hao Huang, **Jian Wang**, Xiaoxia Wu, and Alan E. Willner, "Higher-order dispersion compensation to enable a 3.6 μ s wavelength-maintaining delay of a 100 Gb/s DQPSK signal," *Optics Letters* 35(17), 2985-2987 (2010).
- [J85] Asher Voskoboinik, **Jian Wang**, Bishara Shamee, Scott R. Nuccio, Lin Zhang, Mohammadreza Chitgarha, Alan E. Willner, and Moshe Tur, "SBS-based fiber optical sensing using frequency-domain simultaneous tone interrogation," *Journal of Lightwave Technology* 29(11), 1729-1735 (2011).

- [J86] Antonella Bogoni, Xiaoxia Wu, Scott R. Nuccio, **Jian Wang**, Zahra Bakhtiari, and Alan E. Willner, "Photonic 640-Gb/s reconfigurable OTDM add-drop multiplexer based on pump depletion in a single PPLN waveguide," *IEEE Journal of Selected Topics in Quantum Electronics* 18(2), 709-716 (2012).
- [J87] Weiwei Zhang, Junqiang Sun, **Jian Wang**, and Lei Liu, "Multiwavelength mode-locked fiber-ring laser based on reflective semiconductor optical amplifiers," *IEEE Photonics Technology Letters* 19(19), 1418-1420 (2007).
- [J88] Qizhen Sun, Deming Liu, Li Xia, **Jian Wang**, Hairong Liu, and P. Shum, "Experimental demonstration of multipoint temperature warning sensor using a multichannel matched fiber Bragg grating," *IEEE Photonics Technology Letters* 20(11), 933-935 (2008).
- [J89] Qizhen Sun, Deming Liu, **Jian Wang**, Hairong Liu, Li Xia, and P. Shum, "Multi-point abnormal-temperature warning sensor system with different thresholds," *Applied Physics B: Lasers and Optics* 96(4), 833-841 (2009).
- [J90] Zhefeng Hu, Junqiang Sun, Lei Liu, and **Jian Wang**, "All-optical tunable delay line based on wavelength conversion in semiconductor optical amplifiers and dispersion in dispersion-compensating fiber," *Applied Physics B: Lasers and Optics* 91(3-4), 421-424 (2008).
- [J91] Junqiang Sun and **Jian Wang**, "Simulation of optical NOT gate switching by sum-frequency generation in LiNbO₃ waveguides," *Optics Communications* 267(1), 187-192 (2006).
- [J92] Qizhen Sun, Deming Liu, **Jian Wang**, and Hairong Liu, "Distributed fiber-optic vibration sensor using a ring Mach-Zehnder interferometer," *Optics Communications* 281(6), 1538-1544 (2008).

➤ **Conference Papers**

- [C1] **Jian Wang**, Junqiang Sun, and Qizhen Sun, "Tunable single-to-single and single-to-dual channel wavelength conversions of ps-pulses using PPLN-based double-ring fiber laser," in *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference and Photonic Applications Systems Technologies (CLEO)*, OSA Technical Digest (CD) (Optical Society of America, 2007), Baltimore, Maryland, USA, paper JWA25.
- [C2] **Jian Wang**, Junqiang Sun, Qizhen Sun, Xinliang Zhang, Dexiu Huang, and Martin M. Fejer, "First demonstration of PPLN+RSOA-based tunable all-optical NRZ-to-RZ format conversion," in *European Conference on Optical Communication (ECOC)*, Berlin, Germany, paper P036 (2007).
- [C3] **Jian Wang**, Junqiang Sun, Qizhen Sun, Xinliang Zhang, Dexiu Huang, and Martin M. Fejer, "All-optical 20 Gb/s logic AND gate with tunable single-channel output or dual-channel outputs using a PPLN waveguide," in *European Conference on Optical Communication (ECOC)*, Berlin, Germany, paper 06.3.4 (2007).
- [C4] **Jian Wang**, Junqiang Sun, Xinliang Zhang, Dexiu Huang, and Martin M. Fejer, "PPLN-based all-optical three-input 20/40 Gb/s AND gate for NRZ/RZ signals and XOR gate for NRZ-DPSK/RZ-DPSK signals," in *Optical Fiber Communication Conference and Exposition and The National Fiber Optic Engineers Conference (OFC)*, OSA Technical Digest (CD) (Optical Society of America, 2008), San Diego, California, USA, paper OMV3.
- [C5] **Jian Wang**, Junqiang Sun, Xinliang Zhang, Dexiu Huang, and Martin M. Fejer, "First demonstration on the non-transparency of PPLN and its potential application of CSRZ-to-RZ format conversion," in *Optical Fiber Communication Conference and Exposition and The National Fiber Optic Engineers Conference (OFC)*, OSA Technical Digest (CD) (Optical Society of America, 2008), San Diego, California, USA, paper JThA33.
- [C6] **Jian Wang**, Junqiang Sun, J. B. Rosas-Fernández, G. Huang, Xinliang Zhang, and Dexiu Huang, "First demonstration on the non-transparency of FWM and its application of 40 Gbit/s all-optical CSRZ-to-RZ format conversion," in *European Conference on Optical Communication (ECOC)*, Brussels, Belgium, paper Th.1.B.4 (2008).
- [C7] **Jian Wang**, Qizhen Sun, and Junqiang Sun, "Experimental demonstration on phase-erased demodulation for RZ-DPSK/CSRZ-DPSK signals and ODB/AMI-to-RZ format conversion," in *Conference on Lasers and Electro-Optics/International Quantum Electronics Conference (CLEO)*, OSA Technical Digest (CD) (Optical Society of America, 2009), paper JThE79.

- [C8] **Jian Wang**, Qizhen Sun, and Junqiang Sun, "Novel optical generation of ultrawideband (UWB) signals using quadratic nonlinear interactions seeded by normal/dark pulses," in *European Conference on Optical Communication (ECOC)*, Vienna, Austria, paper P2.02 (2009).
- [C9] **Jian Wang**, Qizhen Sun, and Junqiang Sun, "All-optical multicasting generation of novel high-speed differential Manchester phase-shift keying coding using four-wave mixing," in *Conference on Lasers and Electro-Optics/Pacific Rim (CLEO)*, paper TUP11_19 (2009).
- [C10] **Jian Wang**, Zahra Bakhtiari, Yinying Xiao-Li, Omer F. Yilmaz, Scott R. Nuccio, Xiaoxia Wu, Hao Huang, Jeng-Yuan Yang, Yang Yue, Irfan M. Fazal, Robert Hellwarth, and Alan E. Willner, "Experimental demonstration of data traffic grooming of a single 10-Gbit/s TDM tributary channel between two 160-Gbit/s WDM channels," in *Optical Fiber Communication Conference (OFC)*, paper OFW1, San Diego, CA, Mar. 2010 (Optical Society of America, Washington, D.C., 2010).
- [C11] **Jian Wang**, Zahra Bakhtiari, Yinying Xiao-Li, Scott R. Nuccio, Omer Yilmaz, Xiaoxia Wu, Jeng-Yuan Yang, Yang Yue, Irfan M. Fazal, Robert Hellwarth, and Alan E. Willner, "Phase-transparent optical data exchange of 40-Gbit/s DPSK signals using four-wave-mixing in a highly nonlinear fiber," in *Optical Fiber Communication Conference (OFC)*, paper OMT6, San Diego, CA, Mar. 2010 (Optical Society of America, Washington, D.C., 2010).
- [C12] **Jian Wang**, Omer F. Yilmaz, Scott Nuccio, Xiaoxia Wu, Zahra Bakhtiari, Yinying Xiao-Li, Jeng-Yuan Yang, Hao Huang, Yang Yue, Irfan M. Fazal, Robert Hellwarth, Alan E. Willner, "Data traffic grooming/exchange of a single 10-Gbit/s TDM tributary channel between two pol-muxed 80-Gbit/s DPSK channels," in *Conference on Lasers and Electro-Optics (CLEO)*, paper CFJ5, San Jose, CA, May 2010 (Optical Society of America, Wash., D.C., 2010).
- [C13] **Jian Wang**, Hao Huang, Xue Wang, Jeng-Yuan Yang, and Alan E. Willner, "Optical phase-transparent data grooming exchange of multi-channel 100-Gbit/s RZ-DQPSK signals," in *IEEE Photonics Society Annual Meeting*, paper WN2, Denver, Nov. 2010 (IEEE, Piscataway, NJ, 2010).
- [C14] **Jian Wang**, Scott R. Nuccio, Hao Huang, Xue Wang, Omer F. Yilmaz, Xiaoxia Wu, Jeng-Yuan Yang, Yang Yue, and Alan E. Willner, "Demonstration of 100-Gbit/s DQPSK data exchange between two different wavelength channels using parametric depletion in a highly nonlinear fiber," in *European Conference on Optical Communication (ECOC)*, paper Mo.1.A.4, Torino, Italy, Sept. 2010.
- [C15] **Jian Wang**, Hao Huang, Xue Wang, Jeng-Yuan Yang, Omer F. Yilmaz, Xiaoxia Wu, Scott R. Nuccio, and Alan E. Willner, "2.3-Tbit/s (23X100-Gbit/s) RZ-DQPSK grooming switch (simultaneous add/drop, data exchange and equalization) using double-pass LCoS and bidirectional HNLF," in *IEEE/OSA Conference on Optical Fiber Communications (OFC)*, paper OTuE2, Los Angeles, CA, Mar. 2011 (Optical Society of America, Washington, D.C., 2011).
- [C16] **Jian Wang**, Jeng-Yuan Yang, Xiaoxia Wu, Omer F. Yilmaz, Scott R. Nuccio, and Alan E. Willner, "40-Gbaud/s (120-Gbit/s) octal and 10-Gbaud/s (40-Gbit/s) hexadecimal simultaneous addition and subtraction using 8PSK/16PSK and highly nonlinear fiber," in *IEEE/OSA Conference on Optical Fiber Communications (OFC)*, paper OThC3, Los Angeles, CA, Mar. 2011 (Optical Society of America, Washington, D.C., 2011).
- [C17] **Jian Wang**, Jeng-Yuan Yang, Xiaoxia Wu, and Alan Willner, "Experimental demonstration of variable optical hexadecimal coding/decoding of 10-Gbaud/s 16-QAM using FWM in HNLFs," in *APS/IEEE/OSA Conference on Lasers and Electro-Optics (CLEO)*, paper CWD4, Baltimore, MD, June 2011 (Optical Society of America, Wash., D.C., 2011).
- [C18] **Jian Wang**, Jeng-Yuan Yang, Irfan M. Fazal, Nisar Ahmed, Yan Yan, Bishara Shamee, Alan E. Willner, Kevin Birnbaum, John Choi, Baris Erkmen, Samuel Dolinar, and Moshe Tur, "Demonstration of 12.8-bit/s/Hz spectral efficiency using 16-QAM signals over multiple orbital-angular-momentum modes," in *European Conference on Optical Communications (ECOC)*, paper We.10.P1.76, Geneva, Switzerland, Sept. 2011.
- [C19] **Jian Wang**, Jeng-Yuan Yang, Irfan M. Fazal, Nisar Ahmed, Yan Yan, Bishara Shamee, Alan E. Willner, Kevin Birnbaum, John Choi, Baris Erkmen, Samuel Dolinar and Moshe Tur, "25.6-bit/s/Hz spectral efficiency using 16-QAM signals over pol-muxed multiple orbital-angular-momentum modes," *IEEE Photonics Society Conference 2011 (Annual Meeting)*, paper WW2, Arlington, VA, Oct. 2011 (IEEE, Piscataway, NJ, 2011).

- [C20] **Jian Wang**, Jeng-Yuan Yang, Irfan M. Fazal, Nisar Ahmed, Yan Yan, Alan E. Willner, Samuel Dolinar, and Moshe Tur, "Experimental demonstration of 100-Gbit/s DQPSK data exchange between orbital-angular-momentum modes," in *Conference on Optical Fiber Communications and National Fiber Optics Engineers Conference (OFC)*, paper OW115, Los Angeles, CA, Mar. 2012 (Optical Society of America, Washington, D.C., 2012).
- [C21] **Jian Wang**, Jeng-Yuan Yang, and Alan E. Willner, "Constellation manipulation for optical multicasted hexadecimal coding/decoding of 10-Gbaud/s 16-QAM using non-degenerate FWM in HNLFs," in *Optical Fiber Communication Conference (OFC)*, OSA Technical Digest (Optical Society of America, 2012), paper OTh3H.3.
- [C22] **Jian Wang**, Jeng-Yuan Yang, Hao Huang, and Alan E. Willner, "All-optical 50-Gbaud/s three-input hybrid addition/subtraction of quaternary base numbers using multiple non-degenerate FWM processes and 100-Gbit/s DQPSK signals," in *European Conference on Optical Communications (ECOC)*, paper Tu.1.A.4, Amsterdam, Netherlands, Sept. 2012.
- [C23] **Jian Wang**, Hongyan Fu, Dongyu Geng, and Alan E. Willner, "All-optical wavelength/time-selective switching/dropping/swapping for 100-GHz-spaced WDM signals using a periodically poled lithium niobate waveguide," in *European Conference on Optical Communications (ECOC)*, paper Th.1.A.5, Amsterdam, Netherlands, Sept. 2012.
- [C24] Yan Yan, Jeng-Yuan Yang, Yang Yue, Mohammad Chitgarha, Hao Huang, Nisar Ahmed, **Jian Wang**, Moshe Tur, Samuel Dolinar, and Alan E. Willner, "High-purity generation and power-efficient multiplexing of optical orbital angular momentum (OAM) modes in a ring fiber for spatial-division multiplexing systems," in *APS/IEEE/OSA Conference on Lasers and Electro-Optics (CLEO)*, paper JTh2A.58, San Jose, CA, June 2012 (Optical Society of America, Wash., D.C., 2012).
- [C25] **Jian Wang***, Shuhui Li, Chao Li, Long Zhu, Chengcheng Gui, Dequan Xie, Ying Qiu, Qi Yang, and Shaohua Yu, "Ultra-high 230-bit/s/Hz spectral efficiency using OFDM/OQAM 64-QAM signals over pol-muxed 22 orbital angular momentum (OAM) modes," *Proc. OFC2014*, paper W1H.4 (2014).
- [C26] **Jian Wang***, Chengcheng Gui, Chao Li, and Qi Yang, "On-chip demultiplexing of polarization and wavelength multiplexed OFDM/OQAM 64/128-QAM signals using silicon 2D grating coupler and microring resonators" *Proc. OFC2014*, Th2A.48 (2014).
- [C27] Long Zhu, Xuli Wei, **Jian Wang***, Zhongqi Zhang, Zhuoyu Li, Han Zhang, Shuhui Li, Kejia Wang, and Jinsong Liu, "Experimental demonstration of basic functionalities for 0.1-THz orbital angular momentum (OAM) communications," *Proc. OFC2014*, paper M3K.7 (2014).
- [C28] **Jian Wang***, Jun Liu, Shuhui Li, Long Zhu, Chao Li, Ming Luo, Qi Yang, Shaohua Yu, "Experimental demonstration of free-space optical communications using OFDM-QPSK/16QAM-carrying fractional orbital angular momentum (OAM) multiplexing," *Proc. OFC2015*, paper M2F.5 (2015).
- [C29] Jingwen Ma, Fei Xia, Shuhui Li, and **Jian Wang***, "Design of orbital angular momentum (OAM) erbium doped fiber amplifier with low differential modal gain," *Proc. OFC2015*, paper W2A.40 (2015).
- [C30] Yun Long, Han Zhang, Chao Li, Chengcheng Gui, Qi Yang, and **Jian Wang***, "Ultra-high peak rejection notch microwave photonic filter using a single silicon microring resonator," *Proc. OFC2015*, paper W2A.58 (2015).
- [C31] Jing Du, Shuhui Li, Yifan Zhao, Zhidan Xu, Long Zhu, Peng Zhou, Jun Liu, and **Jian Wang***, "Demonstration of M-ary encoding/decoding using visible-light Bessel beams carrying orbital angular momentum (OAM) for free-space obstruction-free optical communications," *Proc. OFC2015*, paper M2F.4 (2015).
- [C32] **Jian Wang***, Shuhui Li, Ming Luo, Jun Liu, Long Zhu, Chao Li, Dequan Xie, Qi Yang, Shaohua Yu, Junqiang Sun, Xinliang Zhang, William Shieh, and Alan E. Willner, "N-dimensional multiplexing link with 1.036-Pbit/s transmission capacity and 112.6-bit/s/Hz spectral efficiency using OFDM-8QAM signals over 368 WDM pol-muxed 26 OAM modes," *Proc. ECOC2014*, paper Mo.4.5.1 (2014).
- [C33] **Jian Wang***, Yun Long, Chengcheng Gui, Long Zhu and Qi Yang, "Ultracompact wavelength-controllable bi-directional optical diode with high nonreciprocal transmission ratio based on a silicon microring and a directional coupler," *Proc. ECOC2014*, paper P2.13 (2014).

- [C34] Shuhui Li, Chao Li, Jun Liu, Long Zhu, Zhidan Xu, Jiaying Zhou, Qi Yang, and **Jian Wang***, "Demonstration of simultaneous demultiplexing of multiple orbital angular momentum (OAM) modes and arbitrary demultiplexed beam steering using a single complex phase mask," *Proc. ECOC2014*, paper P.4.15 (2014).
- [C35] Shuhui Li, Jun Liu, Chao Li, Chengcheng Gui, Long Zhu, Qi Yang, and **Jian Wang***, "Power-controllable multicasting of a single gaussian mode to multiple orbital angular momentum (OAM) modes," *Proc. CLEO2014*, paper SM3J.5 (2014).
- [C36] Chengcheng Gui, **Jian Wang***, Zhonglai Zhang, Dinshan Gao, Chao Li, and Qi Yang, "Experimental demonstration of on-chip silicon two/three mode (de)multiplexer using OFDM 64/128/256-QAM signals," *Proc. CLEO2014*, paper JTU4A.105 (2014).
- [C37] Jing Du, Chengcheng Gui, Chao Li, Qi Yang, and **Jian Wang***, "Design and fabrication of hybrid SPP waveguides for ultrahigh-bandwidth low-penalty 1.8-Tbit/s data transmission (161 WDM 11.2-Gbit/s OFDM 16-QAM)," *Proc. CLEO2014*, paper JTh2A.35 (2014).
- [C38] Xuli Wei, Long Zhu, Zhongqi Zhang, Kejia Wang, Jun Liu, and **Jian Wang***, "Orbital angular momentum multiplexing in 0.1-THz free-space communication via 3D printed spiral phase plates," *Proc. CLEO2014*, paper Stu2F.2 (2014).
- [C39] Zhuoyu Li, Sheng Luo, **Jian Wang***, and Xuhui Li, "Design of an optically-controlled mode converter using optical force," *Proc. CLEO2014*, paper JTU4A.100 (2014).
- [C40] Zhonglai Zhang, Chengcheng Gui, and **Jian Wang***, "on-chip optical mode exchange using tapered directional coupler," *Proc. OECC2014*, paper 122.00 (2014).
- [C41] Chengcheng Gui, Chao Li, Qi Yang, and **Jian Wang***, "Experimental demonstration of silicon vertical slot waveguides for ultrahigh-bandwidth 1.8-Tbit/s (161 WDM 11.2-Gbit/s OFDM 16-QAM) data transmission," *Proc. OECC2014*, paper 381.00 (2014).
- [C42] Chengcheng Gui, Chao Li, Xi Xiao, Qi Yang, and **Jian Wang***, "Wavelength conversion of OFDM 16-/32-/64-/128-QAM signals using four-wave mixing in a silicon waveguide," *Proc. OECC2014*, paper 164.00 (2014).
- [C43] Irfan M. Fazal, **Jian Wang**, Jeng-Yuan Yang, Nisar Ahmed, Bishara Shamee, Yan Yan, Alan E. Willner, Samuel Dolinar, Kevin Birnbaum, Baris Erkmen, and John Choi, "Demonstration of 2-Tbit/s data link using orthogonal orbital-angular-momentum modes and WDM," in *Frontiers in Optics 2011 (OSA Annual Meeting)*, San Jose, CA, Oct. (Optical Society of America, Wash., D.C., 2011).
- [C44] Yan Yan, Lin Zhang, **Jian Wang**, Jeng-Yuan Yang, Irfan M. Fazal, Nisar Ahmed, Bishara Shamee, Alan E. Willner, Kevin Birnbaum, John Choi, Baris Erkmen, and Samuel Dolinar, "Generating orbital angular momentum modes in a fiber with a central square and a ring profile," in *IEEE Photonics Society Conference 2011 (Annual Meeting)*, paper TuF3, Arlington, VA, Oct. (IEEE, Piscataway, NJ, 2011).
- [C45] Yan Yan, **Jian Wang**, Lin Zhang, Jeng-Yuan Yang, Irfan M. Fazal, Nisar Ahmed, Bishara Shamee, Alan E. Willner, Kevin Birnbaum, John Choi, Baris Erkmen, and Samuel Dolinar, "New approach for generating and (de)multiplexing OAM modes in a fiber coupler consisting of a central ring and four external cores," in *European Conference on Optical Communications (ECOC)*, paper We.10.P1.12, Geneva, Switzerland, Sept. 2011.
- [C46] Hao Huang, Xiaoxia Wu, Jian Wang, Jeng-Yuan Yang, Asher Voskoboinik, and Alan Willner, "All optical reconfigurable radio frequency up/down-conversion using optical parametric loop mirror," in *European Conference on Optical Communications (ECOC)*, paper Mo.1.A.4, Geneva, Switzerland, Sept. 2011.
- [C47] Yang Yue, Hao Huang, Lin Zhang, **Jian Wang**, Jeng-Yuan Yang, Omer Yilmaz, Jacob Levy, Michal Lipson, and Alan Willner, "Experimental demonstration of UWB monocycle pulse generation using two-photon absorption in a silicon waveguide," in *European Conference on Optical Communications (ECOC)*, paper We.10.P1.24, Geneva, Switzerland, Sept. 2011.
- [C48] Jeng-Yuan Yang, X. Steve Yao, **Jian Wang**, X. Chen, Lei Dong, Leon Yao, and Alan E. Willner, "Practical 4-Stage optical PMD compensator for mitigating first- and second-order PMD on 40-Gbit/s RZ-D(Q)PSK," in *APS/IEEE/OSA Conference on Lasers and Electro-Optics (CLEO)*, paper CThY2, Baltimore, MD, June 2011 (Optical Society of America, Wash., D.C., 2011).

- [C49] Xiaoxia Wu, **Jian Wang**, Hao Huang, and Alan E. Willner, "Experimental optical multiplexing of two 20-Gbit/s QPSK data channels from different wavelengths onto a single 40-Gbit/s star 16-QAM using fiber nonlinearities," in *APS/IEEE/OSA Conference on Lasers and Electro-Optics (CLEO)*, paper CThH4, Baltimore, MD, June 2011 (Optical Society of America, Wash., D.C., 2011).
- [C50] Ali Fard, Jeng-Yuan Yang, Brandon Buckley, **Jian Wang**, Mohammad Chitgarha, Lin Zhang, Alan Willner, and Bahram Jalali, "100-Gb/s RZ-DQPSK signal monitoring using time-stretch enhanced recording oscilloscope," in *APS/IEEE/OSA Conference on Lasers and Electro-Optics (CLEO)*, paper CFP1, Baltimore, MD, June 2011 (Optical Society of America, Wash., D.C., 2011).
- [C51] Asher Voskoboinik, **Jian Wang**, Alan E. Willner, and Moshe Tur, "Frequency domain simultaneous tone interrogation for faster, sweep-free Brillouin distributed sensing," in **21st International Conference on Optical Fiber Sensors**, Ottawa, Canada, May 2011.
- [C52] Antonella Bogoni, Xiaoxia Wu, Scott R. Nuccio, **Jian Wang**, and Alan E. Willner, "640Gbit/s reconfigurable OTDM add-drop multiplexer," in *IEEE/OSA Conference on Optical Fiber Communications (OFC)*, paper OMK4, Los Angeles, CA, Mar. 2011 (Optical Society of America, Washington, D.C., 2011).
- [C53] Xiaoxia Wu, Antonella Bogoni, **Jian Wang**, Hao Huang, Scott Nuccio, Omer Yilmaz, and Alan Willner, "40-to-640-Gbit/s multiplexing and subsequent 640-to-10-Gbit/s demultiplexing using cascaded nonlinear optical loop mirrors," in *IEEE/OSA Conference on Optical Fiber Communications (OFC)*, paper OWG7, Los Angeles, CA, Mar. 2011 (Optical Society of America, Washington, D.C., 2011).
- [C54] Jeng-Yuan Yang, Mohammad R. Chitgarha, Lin Zhang, **Jian Wang**, and Alan E. Willner, "Optical Monitoring of Either Time Misalignment or PMD Accumulation in an 80-Gb/s Pol-MUX RZ-DPSK Signal Using Degree-of-Polarization Measurements," in **IEEE Photonics Society Annual Meeting 2010**, paper ME2, Denver, Nov. 2010 (IEEE, Piscataway, NJ, 2010).
- [C55] Xiaoxia Wu, Antonella Bogoni, Hao Huang, Scott R. Nuccio, **Jian Wang**, Omer F. Yilmaz, and Alan E. Willner, "Reconfigurable 40-Gbit/s tributary selection from a 640-Gbit/s signal using NOLM-based cascaded demultiplexing," in *European Conference on Optical Communications (ECOC)*, paper P3.01, Torino, Italy, Sept. 2010.
- [C56] Omer F. Yilmaz, **Jian Wang**, Xue Wang, Scott R. Nuccio, Xiaoxia Wu, and Alan E. Willner, "Multicasting of 50 Gb/s RZ-DPSK signals using self-seeded FWM with phase modulated pumps for SBS suppression," in *European Conference on Optical Communications (ECOC)*, paper P3.23, Torino, Italy, Sept. 2010.
- [C57] Yang Yue, Lin Zhang, **Jian Wang**, Yinying Xiao-Li, Raymond Beausoleil, and Alan E. Willner, ">25x reduction in the effective nonlinear coefficient over a 100-nm wavelength range using vertically-slotted silicon waveguide," in *Conference on Lasers and Electro-Optics (CLEO)*, paper CThR6, San Jose, CA, May 2010 (Optical Society of America, Wash., D.C., 2010).
- [C58] Lin Zhang, **Jian Wang**, Muping Song, Yang Yue, Yinying Xiao Li, Raymond, G. Beausoleil, and Alan E. Willner, "Nonlinear distortions induced by non-idealities of integrated silicon waveguides in analog optical links," in *Conference on Lasers and Electro-Optics (CLEO)*, paper CThN4, San Jose, CA, May 2010 (Optical Society of America, Wash., D.C., 2010).
- [C59] Omer F. Yilmaz, Scott Nuccio, **Jian Wang**, Xiaoxia Wu, and Alan E. Willner, "Multicasting of 40-Gbit/s NRZ-OOK data into 24 RZ copies using a single pump and supercontinuum generation," in *Conference on Lasers and Electro-Optics (CLEO)*, paper CWI3, San Jose, CA, May 2010 (Optical Society of America, Wash., D.C., 2010).
- [C60] Xiaoxia Wu, Hao Huang, **Jian Wang**, Xue Wang, Omer F. Yilmaz, Scott R. Nuccio, and Alan E. Willner, "Simultaneous two-channel wavelength conversion of 40-Gbit/s DPSK WDM signals without additional pumps," in *Conference on Lasers and Electro-Optics (CLEO)*, paper JThE57, San Jose, CA, May 2010 (Optical Society of America, Wash., D.C., 2010).
- [C61] Yinying Xiao-Li, Lin Zhang, Yang Yue, **Jian Wang**, Raymond G. Beausoleil, and Alan E. Willner, "Dispersion tailoring in dual slot waveguide," in *Conference on Lasers and Electro-Optics (CLEO)*, paper CThR5, San Jose, CA, May 2010 (Optical Society of America, Wash., D.C., 2010).

- [C62] Xiaoxia Wu, Antonella Bogoni, Omer F. Yilmaz, Scott R. Nuccio, **Jian Wang**, and Alan E. Willner, "8-Fold 40-to-320-Gbit/s phase-coherent WDM-to-TDM multiplexing and 320-to-40-Gbit/s demultiplexing using highly nonlinear fibers," in *IEEE/OSA Conference on Optical Fiber Communications (OFC)*, paper OThV4, San Diego, CA, Mar. 2010 (Optical Society of America, Washington, D.C., 2010).
- [C63] Omer F. Yilmaz, Scott R. Nuccio, Xue Wang, **Jian Wang**, Irfan M. Fazal, Jeng Yuan Yang, Xiaoxia Wu, Alan E. Willner, "Experimental demonstration of 8-Fold multicasting of a 100 Gb/s polarization-multiplexed OOK signal using highly nonlinear fiber," in *IEEE/OSA Conference on Optical Fiber Communications (OFC)*, paper OWP8, San Diego, CA, Mar. 2010 (Optical Society of America, Washington, D.C., 2010).
- [C64] Yang Yue, Lin Zhang, **Jian Wang**, Yinying Xiao-Li, Bishara Shamee, Vadim Karagodsky, Forrest G. Sedgwick, Werner Hofmann, Raymond G. Beausoleil, Connie J. Chang-Hasnain, and Alan E. Willner, "A "linear" high-contrast gratings hollow-core waveguide and its system level performance," in *IEEE/OSA Conference on Optical Fiber Communications (OFC)*, paper OTuI5, San Diego, CA, Mar. 2010 (Optical Society of America, Washington, D.C., 2010).
- [C65] Lin Zhang, Yang Yue, Yinying Xiao-Li, **Jian Wang**, Raymond G. Beausoleil, and Alan E. Willner, "Achieving uniform chromatic dispersion over a wide wavelength range in highly nonlinear slot waveguides," in *Frontiers in Optics 2009 (OSA Annual Meeting)*, paper FThE2, San Jose, CA, Oct. (Optical Society of America, Wash., D.C., 2009).
- [C66] Xiaoxia Wu, **Jian Wang**, Omer F. Yilmaz, Scott R. Nuccio, Antonella Bogoni, and Alan E. Willner, "Bit-rate-variable and order-switchable optical multiplexing of 160-Gbit/s PRBS data using tunable optical delays," in *European Conference on Optical Communications (ECOC)*, paper 4.3.5, Vienna, Austria, Sept. 2009.
- [C67] Xiaoxia Wu, Scott Nuccio, Omer F. Yilmaz, **Jian Wang**, Antonella Bogoni, and Alan E. Willner, "Controllable optical demultiplexing using continuously tunable optical parametric delay at 160-Gbit/s with with <0.1-ps resolution," in *IEEE Photonics in Switching Meeting*, paper FrI2-2, Pisa, Italy, Sept. 2009 (IEEE, Piscataway, NJ, 2009).
- [C68] J. B. Rosas-Fernández, **Jian Wang**, Yu Yu, Jianji Dong, Junqiang Sun, Xinliang Zhang, Dexiu Huang, R. V. Penty, and I. H. White, "21 port self wavelength switching of 40 Gb/s spectral-amplitude-encoded DPSK signals," in *Optical Fiber Communication Conference and Exposition and The National Fiber Optic Engineers Conference (OFC)*, OSA Technical Digest (CD) (Optical Society of America, 2009), San Diego, California, USA, paper OMU7.
- [C69] Weiwei Zhang, Junqiang Sun, **Jian Wang**, Xinliang Zhang, and Dexiu Huang, "A novel configuration for both multiwavelength mode-locking and optical clock division," in *Optical Fiber Communication Conference and Exposition and The National Fiber Optic Engineers Conference (OFC)*, OSA Technical Digest (CD) (Optical Society of America, 2008), San Diego, California, USA, paper JWA45.
- [C70] Qizhen Sun, Deming Liu, **Jian Wang**, Hairong Liu, Li Xia, and P. Shum, "Multi-point temperature warning sensor using a multi-channel matched fiber Bragg grating," in *Optical Fiber Communication Conference and Exposition and The National Fiber Optic Engineers Conference (OFC)*, OSA Technical Digest (CD) (Optical Society of America, 2008), San Diego, California, USA, paper JWA27.