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CHRONOLOGY OF EDUCATION

Postdoctoral Institutions:

- University of Arizona, Tucson, USA, 12/2001-9/2002
- National Technical University of Athens, Athens, Greece, 4/2000-5/2001

8/1999	Ph.D.	Electrical Engineering University of Nis, Nis, Yugoslavia
2/1997	M.S.	Electrical Engineering University of Nis, Nis, Yugoslavia GPA: 10/10
11/1994	B.S.	Electrical Engineering University of Nis, Nis, Yugoslavia Graduated with highest distinction (the Best Student of the University Award) GPA: 9.65/10 Majored in Electronics and Telecommunications

CHRONOLOGY OF EMPLOYMENT

8/17 –Present	Professor (Tenured) Department of Electrical and Computer Engineering University of Arizona, Tucson, AZ Joint Appointment with College of Optical Sciences University of Arizona, Tucson, AZ
8/12 –8/17	Associate Professor (Tenured) Department of Electrical and Computer Engineering University of Arizona, Tucson, AZ Joint Appointment with College of Optical Sciences University of Arizona, Tucson, AZ
1/13-12/16	Guest/Visiting Professor & TU Fellow Technische Universität Darmstadt, Darmstadt, Germany
7/06 – 8/12	Assistant Professor Department of Electrical and Computer Engineering, College of Engineering Joint Appointment with College of Optical Sciences University of Arizona, Tucson, AZ
1/04 – 7/06	Research Assistant Professor Department of Electrical and Computer Engineering University of Arizona, Tucson, AZ

9/03 – 12/05	Senior Lecturer in Telecommunications Faculty of Computing, Engineering and Mathematical Sciences (now Bristol Institute of Technology) University of the West of England, Bristol, UK
9/02 – 9/03	Research Scientist Department of Electrical and Electronic Engineering University of Bristol Bristol, UK
12/01 – 9/02	Research Scientist Department of Electrical and Computer Engineering University of Arizona, Tucson, AZ
6/01 – 12/01	Senior Member of Technical Staff Tyco Telecommunications Eatontown, NJ, USA
4/00 – 5/01	Postdoctoral Fellow School of Electrical and Computer Engineering National Technical University of Athens, Athens, Greece
1/96 – 9/00	Telecommunication Equipment Specialist National Telecommunications Company Nis, Yugoslavia
11/94 – 1/96	Research/Teaching Assistant Faculty of Electronic Engineering University of Nis Nis, Yugoslavia

HONORS AND AWARDS

- IEEE Fellow, Nov. 2019
- OSA Fellow, Oct. 2016
- 1885 Society Distinguished Scholar Award, 2014
- NSF CAREER Award, 2010
- The Best Paper Award, Asia Communications and Photonics Conference (ACP) 2019
- The Best Paper in the field of Telecommunications Award and Telenor Award, ETRAN 2007
- The Best Student of the University Award, University of Nis, Nis, Yugoslavia, 1995
- The Highest GPA Student Award, University of Nis, Nis, Yugoslavia, 1995

SERVICE, OUTREACH, AND PROFESSIONAL ACTIVITIES

NATIONAL/INTERNATIONAL OUTREACH AND PROFESSIONAL ACTIVITIES

- IEEE Fellow, Nov. 2019
- OSA Fellow, Oct. 2016
- Lead Guest Editor, IEEE Signal Processing Magazine, special issue on Advanced DSP and Coding for Multi-Tb/s-per-Channel Optical Transport (publication date: March 2014)
- Associate Editor, OSA/IEEE Journal of Optical Communications and Networking
- Member of Editorial Board, IOP Journal of Optics
- Senior Editor, IEEE Communications Letters
- Member of Editorial Board/Editor, Elsevier Physical Communication (PHYCOM) Journal, 2016-2019
- Member of Editorial Board, Optical and Quantum Electronics
- Member of Editorial Board, Frequenz
- Member of Editorial Board/Editor, International Journal of Optics, 2008- 2017
- Over 520 publications in scientific journals and refereed conferences

- 50 US patents granted
- 7 books published (additional two in preparation), 8 book chapters published
- Close to 10000 paper citations; h-index 50, i10-index 210 (Google Scholar)
<https://scholar.google.com/citations?user=dPfqhb0AAAAJ&hl=en>
- 2017 IWCMC Wireless Optical Networks Symposium (IWCMC 2017 WON Symposium), TPC Member
- IEEE Photonics Conference, 2018, 2009- 2012
 - Optical Communications Committee Member
- IEEE TELSIS 2013, 2015, 2017, 2019 TPC Member
- IEEE Photonics Society Fellow
- IEEE Fellow, Jan. 2020-present
- IEEE Senior Member, Jan. 2011-Dec. 2019
- IEEE Member, 2002-2010
- IEEE Communications Society Technical Committee on Transmission, Access and Optical Systems (TAOS) (Member)
- IEEE ComSoc Signal Processing and Communications Electronics Technical Committee (Member)
- Journals and Conferences Reviewer:
 - IEEE Transactions on Information Forensics & Security
 - IEEE Photonics Technology Letters
 - IEEE Communications Letters
 - IEEE Transactions on Communications
 - IEEE/OSA Journal of Lightwave Technology
 - IEEE Transactions on Information Theory
 - IEEE Transactions on Wireless Communications
 - IEEE/OSA Journal on Selected Topics in Quantum Electronics
 - IEEE Journal of Selected Areas in Communications
 - IEEE Transactions on Signal Processing
 - Quantum Information Processing
 - IET Optoelectronics
 - OSA Optics Letters
 - OSA Optics Express
 - IEEE Communications Magazine
 - IEEE Photonics Journal
 - IEEE Transactions on Aerospace and Electronic Systems
 - Opto-Electronics Review
 - Frontiers of Optoelectronics
 - Journal of Parallel and Distributed Computing
 - AEUE International Journal of Electronics and Communications
 - Applied Physics B - Lasers and Optics
 - Wireless Personal Communications
 - Optical Engineering
 - Journal of Zhejiang University Science C (Computers & Electronics)
 - FREQUENZ
 - China Communications
 - IEEE International Conference on Communications (ICC)
 - IEEE International Symposium on Information Theory (ISIT)
 - IEEE Global Communications Conference (Globecom)
 - Wireless and Optical Communications Conference (WOCC)
- External Examiner/Project Proposal Evaluator for:
 - Israel Science Foundation
 - European Research Council (ERC)
 - Serbian Ministry of Education, Science, and Technological Development
 - McMaster University, Canada
 - University of Melbourne, Australia
 - Gwangju Institute of Science and Technology, Gwangju, Korea

COURSES DEVELOPED

- Free-Space Optical Communications (ECE/OPTI 536A)
- Digital Communications Systems (ECE 435A/535A)

- Quantum Information Processing and Quantum Error Correction (ECE 633)
- Advanced Optical Communication Systems (ECE/OPTI632)
- Wireless Communications (ECE638) (Course modernized)
- Introduction to Digital Communications (ECE435) (Course modernized)
- Optical Communication Systems ECE/OPTI 430/530 (Course modernized)

NEW ACADEMIC DEGREE PROGRAM DEVELOPMENT

- A member of the team that developed a new joint MS degree program of two Colleges (College of Optical Sciences and College of Engineering) entitled MS in Photonic Communications Engineering, which started in Spring 2011. The ECE/OPTI 430/530 (Optical Communications Systems), thought by Dr. Djordjevic at the time, is a core course for this program. The ECE/OPTI 632 (Advanced Optical Communications) and ECE 638 (Wireless Communications), two courses developed and thought by Dr. Djordjevic, are elective courses for this program.

COURSES TAUGHT

- ECE 535A-201 Digital Communications Systems (Spring 2019, Summer 2018)
- ECE/OPTI 536A: Free-Space Optical Communications Systems (Spring 2018)
- ECE 638: Wireless Communications (Fall 2017, Fall 2015, Fall 2012, Fall 2010, Spring 2009)
- ECE 435A/535A Digital Communications Systems (Spring 2018, Spring 2015, Spring 2014)
- ECE 633: Quantum Information Processing and Quantum Error Correction (Fall 2018, Fall 2014, Fall 2011, Fall 2009)
- ECE 435: Introduction to Digital Communications (Fall 2011, Fall 2010, Fall 2009, Fall 2008, Fall 2004)
- ECE/OPTI 632: Advanced Optical Communication Systems (Spring 2012, Fall 2010, Fall 2007)
- ECE/OPTI 430/530: Optical Communication Systems (Spring 2010, Spring 2007, Fall 2006)
- ECE 429/529: Digital Signal Processing (Spring 2008)
- ECE 340: Engineering Systems Analysis (Spring 2012, Spring 2008)
- ECE 537: Digital Communications Systems II (2005, co-taught with Prof. Vasic)
- ECE 535: Digital Communications Systems I (2005, co-taught with Prof. Vasic)
- University of the West of England UFE004C2: Introduction to Communication Systems and Signals (two semesters' course: one semester on Signals & Systems, one semester on Communication Systems)
- University of the West of England UFE084H1: Electrical Interface (equivalent to Introduction to Electrical Engineering)

CURRENT PHD STUDENTS

- Xiao Han
 - Ziwen Pan
 - Vijay Nafria
- Minor advisor:
- Rahul Kumar Bhadani (OPTI minor advisor)

FORMER PHD STUDENTS

- John Gariano (GD, Phoenix)
- Mingwei Yang (ASML)
- Xiaole Sun (Synopsys Inc.)
- Zhen Qu (Juniper Networks)
- Ding Zou (Pure Storage)
- Changyu Lin (Infinera)
- Tao Liu (Infinera)
- Yequn Zhang (ClariPhy)
- Murat Arabaci (ViaSat)
- Hussam G. Batshon (Subcom Tyco)
- Lyubomir L. Minkov
- Milos Ivkovic (Cornell University, co-supervised with Professors Vasic and Gabitov)
- Jose Castro (Panduit, co-advise with Dr. David Geraghty)
- Berk Akgun (Qualcomm, ECE minor advisor)

CURRENT MS STUDENTS

- Rahul Kumar Bhadani (College of Optical Sciences)

FORMER MS STUDENTS

- Tyan-Lin Wang (University of Arizona)
- Sai Rakesh Mohan Krishna Vangapandu (Georgia Tech)
- Mickey Rhoades (US Navy, USS FORD)
- Xiao Han (University of Arizona, Tucson, AZ)
- Di Xiao (Evus Technologies, Tucson, AZ)
- Aotuo Dong (University of New Mexico)
- Paul Genz (University of Arizona)
- Hatice Irem Demir (TU Darmstadt, Germany) (MS thesis completed during student's visit to Dr. Djordjevic's Lab in 2014)
- Alaa Saleh (TU Darmstadt, Germany) (MS thesis completed during Dr. Djordjevic's sabbatical in 2013)
- Ding Zou (University of Arizona)
- Tao Liu (University of Arizona)
- Mahesh Sharma (Qualcomm)
- Hussam G. Batshon (Subcom Tyco)
- Samita R. Pokhrel
- Anita Patil (co-advise with Dr. David Geraghty)
- Varsha S. Rao (Qualcomm, co-advise with Prof. Bane Vasic)

PUBLICATIONS AND PATENTS

BOOKS

- [B-1] I. B. Djordjevic, *Quantum Information Processing and Quantum Error Correction, 2nd Edition*. In preparation, Elsevier/Academic Press, to appear in 2020.
- [B-2] I. B. Djordjevic, *Quantum Communication, Quantum Networks, and Quantum Sensing*. In preparation, Elsevier/Academic Press, to appear in 2021.
- [B-3] I. B. Djordjevic, *Physical-Layer Security and Quantum Key Distribution*. Springer International Publishing, Switzerland, 2019.
- [B-4] I. B. Djordjevic, *Advanced Optical and Wireless Communications Systems*. Springer International Publishing, Switzerland, Dec. 2017.
- [B-5] I. B. Djordjevic, *Quantum Biological Information Theory*. Springer, Nov. 2015.
- [B-6] M. Cvijetic, I. B. Djordjevic, *Advanced Optical Communications and Networks*. Artech House, 2013.
- [B-7] I. B. Djordjevic, *Quantum Information Processing and Quantum Error Correction: An Engineering Approach*. Elsevier/Academic Press, 2012.
- [B-8] I. Djordjevic, W. Ryan, and B. Vasic, *Coding for Optical Channels*. Springer, 2010.
- [B-9] W. Shieh and I. Djordjevic, *OFDM for Optical Communications*. Elsevier, Oct. 2009.

BOOK CHAPTERS

- [B-10] Z. Qu, I. B. Djordjevic, "Free-Space Optical Communication over Strong Atmospheric Turbulence Channels," in *Principles and Applications of Free Space Optical Communications* (A. K. Majumder, Z. Ghassemlooy, A. A. Bazil Raj, Eds.), IET Telecommunications, pp. 27-38, May 2019. (See: <https://www.theiet.org/resources/books/telecom/free-space.cfm>)
- [B-11] I. B. Djordjevic, "Advanced coding for fiber-optics communications systems," in *Optical Communication Systems: Limits and Possibilities* (A. Ellis, M. Sorokina, Eds.), pp. 191-242, Jenny Stanford Publishing Pte. Ltd., UK, June 2019.
- [B-12] I. B. Djordjevic, Z. Qu, "Coded Orbital Angular Momentum Modulation and Multiplexing Enabling Ultra-High-Speed Free-Space Optical Transmission," in *Optical Wireless Communications - An Emerging Technology*, (M. Uysal, C. Capsoni, Z. Ghassemlooy, A. Boucouvalas, E. G. Udvarny, Editors), pp. 363-385, Springer, 2016.
- [B-13] I. B. Djordjevic, Z. Qu, "Coded Orbital-Angular-Momentum-Based Free-Space Optical Transmission," in *Wiley Encyclopedia of Electrical and Electronics Engineering*, Feb. 2016. (12 pages)
Available at: <http://onlinelibrary.wiley.com/doi/10.1002/047134608X.W8291.abstract>
- [B-14] I. B. Djordjevic, "Advanced coding for optical communication systems," in *Optical Fiber Telecommunications VI*, (I. Kaminow, T. Li and A. Willner, Editors), pp. 221-296, Elsevier/Academic Press, May 2013.
- [B-15] I. B. Djordjevic, "Coding and modulation techniques for optical wireless channels," in *Advanced Optical Wireless Communication Systems*, (S. Arnon, J. Barry, G. Karagiannidis, R. Schober and M. Uysal Eds.), Cambridge University Press, pages 11-53, May 2012.
- [B-16] I. B. Djordjevic, "Codes on graphs, coded modulation and compensation of nonlinear impairments by turbo equalization," in *Impact of Nonlinearities on Fiber Optic Communication*, (S. Kumar Ed.), Springer, pages 451-505, Mar. 2011.

[B-17] I. B. Djordjevic, "Suppression of intrachannel nonlinearities in high-speed WDM systems," in *Advanced Technologies for High-Speed Optical Communications*, (L. Xu Ed.), pp. 247-277, Research Signpost, 2007.

UNITED STATES PATENTS

- [P-1] Patent No. 10,476,599, "Joint source and LDPC coding based coding modulation for ultra-high-speed optical transport," Issued: November 12, 2019 (Filed: April 10, 2017).
- [P-2] Patent No. 10,333,618, "OAM based physical layer security using hybrid free-space optical-terahertz technology," Issued: June 25, 2019 (Filed: April 27, 2018).
- [P-3] Patent No. 10,295,751, "Optically-secured adaptive software-defined optical sensor network architecture," Issued: May 21, 2019 (Filed: February 28, 2018).
- [P-4] Patent No. 10,291,318, "Physical layer security in optical communications using Bessel modes," Issued: May 14, 2019 (Filed: April 27, 2018).
- [P-5] Patent No. 10,234,633, "Transmitter/receiver with orbital angular momentum based optical encryption," Issued: March 19, 2019 (Filed: February 28, 2018).
- [P-6] Patent No. 10,205,591, "Multidimensional coded modulation for wireless communications," Issued: February 12, 2019 (Filed: February 15, 2018).
- [P-7] Patent No. 10,162,121, "Reconfigurable optical space switch," Issued: December 25, 2018 (Filed: February 28, 2018).
- [P-8] Patent No. 9,742,526, "Optimal signal constellation design for ultra-high-speed optical transport in the presence of phase noise," Issued: August 22, 2017 (Filed: October 2, 2014).
- [P-9] Patent No. 9,735,921, "Ultra-high speed optical transport employing LDPC-coded modulation with non-uniform signaling," Issued: August 15, 2017 (Filed: April 25, 2016).
- [P-10] Patent No. 9,722,634, "Multiple component codes based generalized low-density parity-check codes for high-speed optical transport," Issued: August 1, 2017 (Filed: October 14, 2014).
- [P-11] Patent No. 9,485,029, "Multinary signaling based coded modulation for ultra-high-speed optical transport," Issued: November 1, 2016 (Filed: June 23, 2015).
- [P-12] Patent No. 9,479,285, "Non-binary LDPC coded mode-multiplexed four-dimensional signaling based on orthogonal frequency division multiplexing," Issued: October 25, 2016 (Filed: October 14, 2014).
- [P-13] Patent No. 9,367,387, "Rate adaptive irregular QC-LDPC codes from pairwise balanced designs for ultra-high-speed optical transports," Issued: June 14, 2016 (Filed: January 24, 2014).
- [P-14] Patent No. 9,203,555, "Optimum signal constellation design and mapping for few-mode fiber based LDPC-coded CO-OFDM," Issued: December 1, 2015 (Filed: February 13, 2014).
- [P-15] Patent No. 9,203,544, "Optical communication system, device and method employing advanced coding and high modulation order," Issued: December 1, 2015 (Filed: December 3, 2010).
- [P-16] Patent No. 9,197,249, "Adaptive LDPC-coded multidimensional spatial-MIMO multiband generalized OFDM," Issued: November 24, 2015 (Filed: June 6, 2013).
- [P-17] Patent No. 9,184,873, "Ultra-high-speed optical transport based on adaptive LDPC-coded multidimensional spatial-spectral scheme and orthogonal prolate spheroidal wave functions," Issued: November 10, 2015 (Filed: March 18, 2014).
- [P-18] Patent No. 9,166,728, "Nonbinary LDPC coded modulation without bandwidth expansion for high-speed optical transmission," Issued: October 20, 2015 (Filed: October 5, 2012).
- [P-19] Patent No. 9,094,125, "Multidimensional coded-modulation for high-speed optical transport over few-mode fibers," Issued: July 28, 2015 (Filed: May 24, 2013).
- [P-20] Patent No. 9,071,383, "Modified orthogonal polynomials based hybrid coded-modulation for multi-Tb/second optical transport," Issued: June 30, 2015 (Filed: February 4, 2014).
- [P-21] Patent No. 9,036,992, "LDPC-coded modulation for ultra-high-speed optical transport in the presence of phase noise," Issued: May 19, 2015 (Filed: May 28, 2013).

- [P-22] Patent No. 8,977,121, "Spatial domain based multi dimensional coded modulation for multi Tb per second serial optical transport networks," Issued: March 10, 2015 (Filed: October 10, 2011).
- [P-23] Patent No. 8,891,964, "Dynamic multidimensional optical networking based on spatial and spectral processing," Issued: November 18, 2014 (Filed: December 12, 2012).
- [P-24] Patent No. 8,874,987, "Optimum signal constellation design for high-speed optical transmission," Issued: October 28, 2014 (Filed: October 5, 2012).
- [P-25] Patent No. 8,768,175, "Four-dimensional optical multiband-OFDM for beyond 1.4Tb/s serial optical transmission," Issued: July 1, 2014 (Filed: October 1, 2011).
- [P-26] Patent No. 8,761,608, "Coded multidimensional pulse amplitude modulation for ultra-high-speed optical transport," Issued: June 24, 2014 (Filed: October 1, 2011).
- [P-27] Patent No. 8,743,984, "Multidimensional hybrid modulations for ultra-high-speed optical transport," Issued: June 3, 2014 (Filed: April 6, 2012).
- [P-28] Patent No. 8,719,656, "Four-dimensional non-binary LDPC-coded modulation schemes for ultra high-speed optical fiber communication," Issued: May 6, 2014 (Filed: April 6, 2012).
- [P-29] Patent No. 8,699,625, "Generalized OFDM (GOFDM) for ultra-high-speed serial optical transport networks," Issued: April 15, 2014 (Filed: October 10, 2011).
- [P-30] Patent No. 8,660,205, "Energy efficient constellation method and system," Issued: February 25, 2014 (Filed: June 3, 2012).
- [P-31] Patent No. 8,595,585, "Reverse concatenated encoding and decoding," Issued: November 26, 2013 (Filed: May 26, 2011).
- [P-32] Patent No. 8,589,755, "Reduced-complexity LDPC decoding," Issued: November 19, 2013 (Filed: May 24, 2011).
- [P-33] Patent No. 8,588,623, "Coded polarization-multiplexed iterative polar modulation," Issued: November 19, 2013 (Filed: August 20, 2010).
- [P-34] Patent No. 8,538,278, "Superimposed training and digital filtering coherent optical receivers," Issued: September 17, 2013 (Filed: February 9, 2010).
- [P-35] Patent No. 8,386,879, "GLDPC encoding with Reed-Muller component codes for optical communications," Issued: February 26, 2013 (Filed: August 11, 2008).
- [P-36] Patent No. 8,385,439, "Polarization mode dispersion compensation in multilevel coded-modulation schemes using BLAST algorithm and iterative polarization cancellation," Issued: February 26, 2013 (Filed: February 25, 2009).
- [P-37] Patent No. 8,381,065, "Modified progressive edge-growth LDPC codes for ultra-high-speed serial optical transport," Issued: February 19, 2013 (Filed: October 1, 2010).
- [P-38] Patent No. 8,234,549, "Simultaneous PMD compensation and chromatic dispersion compensation using LDPC coded OFDM," Issued: July 31, 2012 (Filed: March 6, 2008).
- [P-39] Patent No. 8,234,538, "Ultra high-speed optical transmission based on LDPC-coded modulation and coherent detection for all-optical network," Issued: July 31, 2012 (Filed: November 16, 2007).
- [P-40] Patent No. 8,219,874, "Multi-dimensional LDPC coded modulation for high-speed optical transmission systems," Issued: July 10, 2012 (Filed: August 4, 2009).
- [P-41] Patent No. 8,185,796, "Mitigation of fiber nonlinearities in multilevel coded-modulation schemes," Issued: May 22, 2012 (Filed: February 25, 2009).
- [P-42] Patent No. 8,184,993, "Polarization mode dispersion (PMD) compensation in polarization multiplexed coded orthogonal frequency division multiplexing (OFDM) systems," Issued: May 22, 2012 (Filed: February 25, 2009).
- [P-43] Patent No. 8,181,091, "High speed LDPC decoding," Issued: May 15, 2012 (Filed: Oct. 2, 2008).
- [P-44] Patent No. 8,176,381, "Multidimensional turbo product codes and generalized low-density parity-check codes with component Reed-Solomon codes for optical transmission," Issued: May 8, 2012 (Filed: May 8, 2008).
- [P-45] Patent No. 8,175,466, "Methods and systems for polarization multiplexed multilevel modulation for optical communication," Issued: May 8, 2012 (Filed: Mar. 10, 2009).
- [P-46] Patent No. 8,140,934, "LDPC-coded multilevel modulation scheme," Issued: March 20, 2012 (Filed: September 30, 2008).

- [P-47] Patent No. 8,099,645, "LDPC codes and stochastic decoding for optical transmission," Issued: January 17, 2012 (Filed: August 21, 2008).
- [P-48] Patent No. 8,006,163, "Polarization mode dispersion compensation using BCJR equalizer and iterative LDPC decoding," Issued: August 23, 2011 (Filed: December 5, 2007).
- [P-49] Patent No. 7,992,070, "Bit-interleaved LDPC-coded modulation for high-speed optical transmission," Issued: August 2, 2011 (Filed: December 5, 2007).
- [P-50] Patent No. 7,991,070, "Wavelength transmission system and method using 3-dimensional LDPC-coded modulation," Issued: August 2, 2011 (Filed: March 18, 2008).

REFEREED JOURNAL PAPERS

- [J-1] I. B. Djordjevic, "Hybrid QKD Protocol Outperforming both DV- and CV-QKD Protocols," *IEEE Photonics J.*, 11 October 2019. [Available at: <https://ieeexplore.ieee.org/document/8865103>]
- [J-2] X. Han, M. Yang, I. B. Djordjevic, Y. Yue, Q. Wang, Z. Qu, J. Anderson, "Joint Probabilistic-Nyquist Pulse Shaping for LDPC-coded 8-PAM Signal in DWDM Data Center Communications," *Applied Sciences*, section on *Optics and Lasers*, special issue on *Optical Communications and Networking: Prospects in Industrial Applications*, vol. 9, no. 23, p. 4996, Nov. 20, 2019. [Available at: <https://www.mdpi.com/2076-3417/9/23/4996>]
- [J-3] I. B. Djordjevic, "On the Photon Subtraction-based Measurement-Device-Independent CV-QKD Protocols," *IEEE Access*, vol. 7, pp. 147399-147405, 11 October 2019. [Available at: <https://ieeexplore.ieee.org/document/8864965>]
- [J-4] T.-L. Wang, I. B. Djordjevic, J. Nagel, "Laser Beam Propagation Effects on Secure Key Rates for Satellite-to-Ground Discrete Modulation CV-QKD," *Applied Optics*, vol. 58, no. 29, pp. 8061-8068, Oct. 2019. [Available at: <https://www.osapublishing.org/ao/abstract.cfm?uri=ao-58-29-8061>]
- [J-5] M. Yang, H. Rastegarfar, I. B. Djordjevic, "Probabilistically Coded Modulation Formats for 5G Mobile Fronthaul Networks," *J. Lightwave Technol.*, vol. 37, no. 16, pp. 3882 - 3892, Aug. 15, 2019. [Available at: <https://ieeexplore.ieee.org/document/8736362>]
- [J-6] I. B. Djordjevic, "Proposal for Slepian-States-based DV- and CV-QKD Schemes Suitable for Implementation in Integrated Photonics Platforms," *IEEE Photonics Journal*, vol. 11, no. 4, p. 7600312, Aug. 2019. [Available at: <https://ieeexplore.ieee.org/document/8740944>]
- [J-7] I. B. Djordjevic, "Optimized-Eight-State CV-QKD Protocol Outperforming Gaussian Modulation Based Protocols," *IEEE Photonics Journal*, vol. 11, no. 4, p. 4500610, Aug. 2019. [Available at: <https://ieeexplore.ieee.org/document/8732438>]
- [J-8] I. B. Djordjevic, "On the Discretized Gaussian Modulation (DGM)-based Continuous Variable-QKD," *IEEE Access*, vol. 7, pp. 65342-65346, 17 May 2019. [Available at: <https://ieeexplore.ieee.org/document/8717649>]
- [J-9] Z. Qu, I. B. Djordjevic, J. Anderson, "Two-dimensional Constellation Shaping in Fiber-optics Communications," *Applied Sciences*, Special Issue "Optical Communications and Networking: Prospects in Industrial Applications," *Appl. Sci.*, vol. 9, no. 9, p. 1889, 8 May 2019. [Available at: <https://www.mdpi.com/2076-3417/9/9/1889>]
- [J-10] Z. Qu, I. B. Djordjevic, "On the Probabilistic Shaping and Geometric Shaping in Optical Communication Systems," *IEEE Access*, vol. 7, pp. 21454 - 21464, 04 February 2019. [Available at: <https://ieeexplore.ieee.org/document/8633909>]
- [J-11] J. Gariano, I. B. Djordjevic, "Employing Covert Communications-based Information Reconciliation and Multiple Spatial Modes to Polarization Entanglement QKD," *Optics Letters*, vol. 44, no. 3, pp. 687-690, Feb. 1, 2019. [Available at: <https://www.osapublishing.org/ol/abstract.cfm?uri=ol-44-3-687>]
- [J-12] X. Sun, I. B. Djordjevic, "FPGA implementation of rate-adaptive spatially-coupled LDPC codes suitable for optical communications," *Optics Express*, vol. 27, no. 3, pp. 3422-3428, Feb. 4, 2019. [Available at: <https://www.osapublishing.org/oe/abstract.cfm?uri=oe-27-3-3422>]
- [J-13] J. Gariano, I. B. Djordjevic, "Theoretical study of a submarine to submarine quantum key distribution systems," *Optics Express*, vol. 27, no. 3, pp. 3055-3064, Feb. 4, 2019. [Available at: <https://www.osapublishing.org/oe/abstract.cfm?uri=oe-27-3-3055>]
- [J-14] Z. Qu, I. B. Djordjevic, "Orbital Angular Momentum Multiplexed Free-space Optical communication Systems Based on Coded Modulation," in *Novel Insights into Orbital Angular Momentum Beams: From Fundamentals, Devices to Applications*; *Applied Sciences*, vol. 8, no. 11, p. 2179, Nov. 2018. (10 pages) (Invited paper.) [Available at: <https://www.mdpi.com/2076-3417/8/11/2179>]
- [J-15] T.-L. Wang, I. B. Djordjevic, "Physical-Layer Security of a Binary Data Sequence Transmitted with Bessel-Gaussian Beams Over an Optical Wiretap Channel," *IEEE Photonics Journal*, vol. 10, no. 6, p. 7908611, Dec. 2018. (11 pages) [Available at: <https://ieeexplore.ieee.org/document/8516329>]

- [J-16] X. Sun, D. Zou, Z. Qu, I. B. Djordjevic, "Run-time reconfigurable adaptive LDPC coding for optical channels," *Optics Express*, vol. 26, no. 22, pp. 29319-29329, Oct. 29, 2018.
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