

Dr. IVAN B. DJORDJEVIC
Professor of ECE & Optical Sciences
IEEE Fellow & Optica (formerly OSA) Fellow
Department of Electrical and Computer Engineering, College of Engineering
College of Optical Sciences
University of Arizona

Department of Electrical and Computer Engineering
University of Arizona
1230 E. Speedway Blvd.
Tucson, AZ 85721, USA

E-mail: ivan@email.arizona.edu
Web: <http://www2.engr.arizona.edu/~ivan/>
Phone: (520) 626-5119

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	Dipl. Ing.	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
- Optica (OSA) Fellow, Oct. 2016
- Berge Dean's Fellow, Sept. 2020
- 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
- Optica (formerly OSA) Fellow, Oct. 2016
- Editor, IEEE Transactions on Communications, 2021-Present
- Guest Editor, Entropy, Special Issue Physical-Layer Security, Quantum Key Distribution and Post-quantum Cryptography (Deadline for manuscript submissions: 15 June 2021)
- Associate Editor, OSA/IEEE Journal of Optical Communications and Networking (2019-2022)

- 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)
- Member of Editorial Board, IOP Journal of Optics (2016-2021)
- Area Editor, IEEE Communications Letters (2019-2021)
- Senior Editor, IEEE Communications Letters (2018-2019)
- Editor, IEEE Communications Letters (2012-2017)
- Member of Editorial Board/Editor, Elsevier Physical Communication (PHYCOM) Journal (2016-2021)
- Member of Editorial Board, Optical and Quantum Electronics (2019-present)
- Member of Editorial Board, Frequenz (2013-Present)
- Member of Editorial Board/Editor, International Journal of Optics, 2008-2017
- Over 570 publications in scientific journals and refereed conferences
- 54 US patents granted
- 11 books published, 13 book chapters published
- >11900 paper citations; h-index 55, i10-index 248 (Google Scholar)
<https://scholar.google.com/citations?user=dPfghb0AAAAJ&hl=en>
- 2017 IWCMC Wireless Optical Networks Symposium (IWCMC 2017 WON Symposium), TPC Member
- OFC 2021-2022 TPC Member
- IEEE Photonics Conference, 2018, 2009- 2012
 - Optical Communications Committee Member
- IEEE TELSIS 2013-Present, 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 (Summer 2020, Spring 2019, Summer 2018)
- ECE/OPTI 536A: Free-Space Optical Communications Systems (Spring 2018)
- ECE 638: Wireless Communications (Spring 2020, 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

- Vijay Nafria
- Chris Hall

FORMER PHD STUDENTS

- Ziwen Pan (LightPoint, San Jose, CA)
- Rahul Kumar Bhadani (University of Arizona, OPTI minor advisor)
- Xiao Han (Infirera, San Jose, CA)
- 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)

FORMER MS STUDENTS

- Rahul Kumar Bhadani (University of Arizona)
- 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, *Physical-Layer Security, Quantum Key Distribution and Post-quantum Cryptography*. Basel-Beijing: MDPI, Aug. 2022.
- [B-2] I. B. Djordjevic, *Advanced Optical and Wireless Communications Systems, 2nd Edition*. Springer Nature Switzerland AG, Switzerland, July 2022.
- [B-3] I. B. Djordjevic, *Quantum Communication, Quantum Networks, and Quantum Sensing*. Elsevier/Academic Press, July 2022.
- [B-4] I. B. Djordjevic, *Quantum Information Processing, Quantum Computing, and Quantum Error Correction, 2nd Edition*. Elsevier/Academic Press, Feb. 2021.
- [B-5] I. B. Djordjevic, *Physical-Layer Security and Quantum Key Distribution*. Springer Nature Switzerland, 2019.
- [B-6] I. B. Djordjevic, *Advanced Optical and Wireless Communications Systems*. Springer International Publishing, Switzerland, Dec. 2017.
- [B-7] I. B. Djordjevic, *Quantum Biological Information Theory*. Springer, Nov. 2015.
- [B-8] M. Cvijetic, I. B. Djordjevic, *Advanced Optical Communications and Networks*. Artech House, 2013.
- [B-9] I. B. Djordjevic, *Quantum Information Processing and Quantum Error Correction: An Engineering Approach*. Elsevier/Academic Press, 2012.
- [B-10] I. Djordjevic, W. Ryan, and B. Vasic, *Coding for Optical Channels*. Springer, 2010.
- [B-11] W. Shieh and I. Djordjevic, *OFDM for Optical Communications*. Elsevier, Oct. 2009.

BOOK CHAPTERS

- [B-12] I. B. Djordjevic, "Physical-Layer Security, Quantum Key Distribution, and Post-Quantum Cryptography," in *Physical-Layer Security, Quantum Key Distribution and Post-quantum Cryptography* (I. B. Djordjevic, Ed.), pp. 1-3, Printed Edition of the Special Issue Published in *Entropy*, Basel-Beijing: MDPI, Aug. 2022.
- [B-13] Z. Pan, I. B. Djordjevic, "Geometrical Optics Restricted Eavesdropping Analysis of Satellite-to-Satellite Secret Key Distillation," in *Physical-Layer Security, Quantum Key Distribution and Post-quantum Cryptography* (I. B. Djordjevic, Ed.), pp. 5-12, Printed Edition of the Special Issue Published in *Entropy*, Basel-Beijing: MDPI, Aug. 2022.
- [B-14] I. B. Djordjevic, "On Global Quantum Communication Networking," in *Physical-Layer Security, Quantum Key Distribution and Post-quantum Cryptography* (I. B. Djordjevic, Ed.), pp. 13-21, Printed Edition of the Special Issue Published in *Entropy*, Basel-Beijing: MDPI, Aug. 2022.
- [B-15] I. B. Djordjevic, "Surface-Codes-Based Quantum Communication Networks," in *Physical-Layer Security, Quantum Key Distribution and Post-quantum Cryptography* (I. B. Djordjevic, Ed.), pp. 39-48, Printed Edition of the Special Issue Published in *Entropy*, Basel-Beijing: MDPI, Aug. 2022.
- [B-16] V. M. Ilić, I. B. Djordjevic, "On the α -q-Mutual Information and the α -q-Capacities," *The Statistical Foundations of Entropy* (P. Jizba and J. Korbel, Eds.), pp. 25-47, Printed Edition of the Special Issue Published in *Entropy*, Basel-Beijing: MDPI, 2022.
- [B-17] 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-18] 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-19] 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. Udvarý, Editors), pp. 363-385, Springer, 2016.
- [B-20] 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-21] 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-22] 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-23] 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-24] 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.

REFEREED JOURNAL PAPERS

- [J-1] I. B. Djordjevic, "On Entanglement-Assisted Multistatic Radar Techniques," Special Issue *Information Theory and Coding for Wireless Communications*, *Entropy*, vol. 24, no. 7, p. 990, 17 July 2022. (12 pages)
[Available at: <https://www.mdpi.com/1099-4300/24/7/990>]
- [J-2] I. B. Djordjevic, "Physical-Layer Security, Quantum Key Distribution, and Post-Quantum Cryptography," *Entropy*, vol. 24, p. 935, 6 July 2022. (Editorial paper.)
[Available at: <https://www.mdpi.com/1099-4300/24/7/935>]
- [J-3] R. K. Bhadani, I. B. Djordjevic, "Optimized Squeezing Operation for Phase-Shift Keying Quantum State Discrimination," *IEEE Access*, vol. 10, pp. 63383-63393, 14 June 2022.
[Available at: <https://ieeexplore.ieee.org/document/9795304>]
- [J-4] S. Hao, H. Shi, C. N. Gagatsos, M. Mishra, B. Bash, I. Djordjevic, S. Guha, Q. Zhuang, Z. Zhang, "Demonstration of entanglement-enhanced covert sensing," *Physical Review Letters*, vol. 129, no. 1, p. 010501, 1 July 2022.
[Available at: <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.129.010501>]

- [J-5] T. Liu, S. Zhao, I. B. Djordjevic, S. Liu, S. Wang, T. Wu, B. Li, P. Wang, R. Zhang, "Analysis of Atmospheric Effects on the Continuous Variable Quantum Key Distribution," Chinese Physics B, Accepted 28 April 2022.
[Available at: <https://iopscience.iop.org/article/10.1088/1674-1056/ac6b1f/pdf>]
- [J-6] I. B. Djordjevic, "Entanglement-Assisted Joint Monostatic-Bistatic Radars," Special Issue *Quantum Communication, Quantum Radar, and Quantum Cipher*, *Entropy*, vol. 22, no. 6, p. 756, May 2022. (12 pages)
[Available at: <https://www.mdpi.com/1099-4300/24/6/756>]
- [J-7] I. B. Djordjevic, "Entanglement Assisted Radars with Transmitter Side Optical Phase Conjugation and Classical Coherent Detection," *IEEE Access*, vol. 10, pp. 49095-49100, 2022.
[Available at: <https://ieeexplore.ieee.org/document/9770047>]
- [J-8] I. B. Djordjevic, "Hybrid CV-DV Quantum Communications and Quantum Networks," *IEEE Access*, vol. 10, pp. 23284-23292, 2022.
[Available at: <https://ieeexplore.ieee.org/document/9721294>]
- [J-9] X. Han, I. B. Djordjevic, "Two-Dimensional Transmission of Four-Dimensional LDPC-Coded Modulation with Slepian Sequences for DSP-Free 40km Metro Network Applications," Special Issue *Fiber Optical Communication and Sensing Systems, Sensors*, vol. 22, no. 5, paper ID 1815, 25 Feb 2022. (Invited paper.) (9 pages)
[Available at: <https://www.mdpi.com/1424-8220/22/5/1815>]
- [J-10] I. B. Djordjevic, "On Entanglement Assisted Classical Optical Communication with Transmitter Side Optical Phase-Conjugation," *IEEE Access*, vol. 9, pp. 168930 - 168936, 22 December 2021.
[Available at: <https://ieeexplore.ieee.org/document/9658527>]
- [J-11] Z. Pan, I. B. Djordjevic, "An Overview of Geometrical Optics Restricted Quantum Key Distribution," Special Issue *Entropies, Divergences, Information, Identities and Inequalities*, *Entropy*, vol. 23, no. 8, p. 1003, 31 July 2021. (Invited paper) (11 pages)
[Available at: <https://www.mdpi.com/1099-4300/23/8/1003>]
- [J-12] Z. Pan, I. B. Djordjevic, "Geometrical Optics Restricted Eavesdropping Analysis of Satellite-to-Satellite Secret Key Distillation," Special Issue *Physical-Layer Security, Quantum Key Distribution and Post-Quantum Cryptography*, *Entropy*, vol. 23, no. 8, p. 970, 25 July 2021. (8 pages)
[Available at: <https://www.mdpi.com/1099-4300/23/8/950>]
- [J-13] V. M. Ilić, I. B. Djordjevic, "On the α -q-Mutual Information and the α -q-Capacities," *Entropy*, vol. 23, no 6, p. 702, 01 Jun 2021. (23 pages)
[Available at: <https://www.mdpi.com/1099-4300/23/6/702>]
- [J-14] I. B. Djordjevic, "Quantum Receivers for Entanglement Assisted Classical Optical Communications," *IEEE Photonics Journal*, vol. 13, no. 3, article ID 7500114, June 2021. (Early posting: 27 April 2021)
[Available at: <https://ieeexplore.ieee.org/document/9416745>]
- [J-15] I. B. Djordjevic, "QKD-enhanced Cybersecurity Protocols," *IEEE Photonics Journal*, vol. 13, no. 2, Article ID 7600208, Apr. 2021.
[Available at: <https://ieeexplore.ieee.org/document/9390172>]
- [J-16] I. B. Djordjevic, "On Entanglement Assisted Classical Optical Communications," *IEEE Access*, vol. 9, pp. 42604 - 42609, 17 March 2021.
[Available at: <https://ieeexplore.ieee.org/document/9380130>]
- [J-17] I. B. Djordjevic, "Atmospheric Turbulence-Controlled Cryptosystems," *IEEE Photonics Journal*, vol. 13, no.1, Article ID 7900909, Feb. 2021.
[Available at: <https://ieeexplore.ieee.org/document/9333668>]
- [J-18] A. Z. Jovanovic, I. B. Djordjevic, Z. H. Peric, S. A. Vljakov, "Circularly-Symmetric Companding Quantization-Inspired Hybrid Constellation Shaping for APSK Modulation to Increase Power Efficiency in Gaussian-Noise-Limited Channel," *IEEE Access*, vol. 9, pp. 4072 - 4083, January 8, 2021. (Early access: 28 December 2020).
[Available at: <https://ieeexplore.ieee.org/document/9309225>]
- [J-19] R. K. Bhadani, I. B. Djordjevic, "Constellation Optimization for Phase-shift Keying Coherent States with Displacement Receiver to Maximize Mutual Information," *IEEE Access*, vol. 8, pp. 224409 – 224419, 11 December 2020.
[Available at: <https://ieeexplore.ieee.org/document/9291373>]
- [J-20] Z. Pan, I. B. Djordjevic, "Secret key distillation over satellite-to-satellite free-space optics channel with a limited-sized aperture eavesdropper in the same plane of the legitimate receiver," *Optics Express*, vol. 28, no. 25, pp. 37129-37148, 2020.
[Available at: <https://doi.org/10.1364/OE.401597>]
- [J-21] I. B. Djordjevic, "Surface-Codes-Based Quantum Communication Networks," Special Issue *Physical-Layer Security, Quantum Key Distribution and Post-Quantum Cryptography*, *Entropy*, vol. 22, no. 9, p. 1059, 22 September 2020. (10 pages)

- [Available at: <https://www.mdpi.com/1099-4300/22/9/1059>]
- [J-22] I. B. Djordjevic, "Joint QKD-Post-Quantum Cryptosystems," *IEEE Access*, vol. 8, pp. 154708–154712, 24 August 2020. [Available at: <https://ieeexplore.ieee.org/document/9174728>]
- [J-23] I. B. Djordjevic, "On Global Quantum Communication Networking," Special Issue *Physical-Layer Security, Quantum Key Distribution and Post-Quantum Cryptography; Entropy*, vol. 22, no. 8, p. 831, 29 July 2020. (9 pages) [Available at: <https://www.mdpi.com/1099-4300/22/8/831>]
- [J-24] Z. Pan, K. P. Seshadreesan, W. Clark, M. R. Adcock, I. B. Djordjevic, J. H. Shapiro, S. Guha, "Secret-Key Distillation across a Quantum Wiretap Channel under Restricted Eavesdropping," *Physical Review Applied*, vol. 14, no. 2, p. 024044, 2020. (Published 17 August 2020.) (18 pages) [Available at: <https://journals.aps.org/prapplied/abstract/10.1103/PhysRevApplied.14.024044>]
- [J-25] M. Yang, L. Li, X. Liu, I. B. Djordjevic, "Real-Time Verification of Soft-Decision LDPC Coding for Burst Mode Upstream Reception in 50G-PON," *IEEE/OSA J. Lightw. Technol.*, vol. 38, no. 7, pp. 1693-1701, April 1, 2020. [Available at: <https://ieeexplore.ieee.org/document/8937482>]
- [J-26] I. B. Djordjevic, "Hybrid QKD Protocol Outperforming both DV- and CV-QKD Protocols," *IEEE Photonics J.*, vol. 12, no. 1, p. 7600108, Feb. 2020. [Available at: <https://ieeexplore.ieee.org/document/8865103>]
- [J-27] 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-28] 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-29] 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-30] 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-31] 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-32] 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-33] 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>]
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