ADDRESS

Prof. Jelena Vuckovic
Ginzton Laboratory
Spilker Building for Engineering and Applied Sciences
Stanford University
348 Via Pueblo Mall
Stanford, CA 94305-4088
Phone: (650) 725-2288
Fax: (650) 723-5320
E-mail: jela@stanford.edu
WWW: http://web.stanford.edu/~jela

EDUCATION

Postdoc.	Applied Physics	Stanford	2002
Ph.D	Electrical Engineering	California Institute of Technology	2002
M.S.	Electrical Engineering	California Institute of Technology	1997
Diploma	Electrical Engineering	University of Nis, Serbia	1994

APPOINTMENTS

June 2019 – present: Jensen Huang Professor of Global Leadership, Professor of Electrical Engineering and, by courtesy, of Applied Physics, Stanford University

Faculty member of the Ginzton Lab, PULSE Institute, SIMES Institute, Wu-Tsai Neuroscience Institute, and Bio-X at Stanford

August 2021 – June 2023: Fortinet Founders Chair of Electrical Engineering Department, Stanford

December 2018 – July 2021: Inaugural Director of Q-FARM: Stanford-SLAC Quantum Initiative

September 2014 – June 2019: Professor of Electrical Engineering and by courtesy of Applied Physics, Stanford University; a faculty member of the Ginzton Lab, PULSE Institute, SIMES Institute, and Bio-X

February 2013 – Sept. 2014: Professor of Electrical Engineering, Stanford University; a faculty member of Ginzton Lab

Sept. 2008 – January 2013: Associate Professor of Electrical Engineering (with tenure), Stanford University

January 2003–Aug. 2008: Assistant Professor of Electrical Engineering, Stanford University

September 2002–December 2002: Acting Assistant Professor of Electrical Engineering, Stanford University

January 2002–August 2002: Postdoctoral Scholar, Stanford University, Applied Physics Department

Sept 1996–December 2001: Research and Teaching Assistant, California Institute of Technology.

1996: Research and Teaching Assistant, Communications Science and Engineering Group, School of Electrical Engineering, University of Sydney, Australia.

1994–1995: Research and Teaching Assistant, Faculty of Electronic Engineering, University of Nis, Yugoslavia.

AWARDS and HONORS

2026: R.W. Wood Prize, Optica

2025: Samsung Award

2025: Zeiss Research Award

2024: External Scientific Member, Max Planck Institute for Quantum Optics, Munich, Germany

2023: Member of the National Academy of Sciences

2023: Geoffrey Frew Fellowship, the Australian Academy of Science

2022: Vannevar Bush Faculty Fellow, the US Department of Defense

2021: Mildred Dresselhaus Lecturer, MIT

2020: James P. Gordon Memorial Speaker, the Optical Society (OSA)

2019: A. F. Harvey Engineering Research Prize, the IET

2019: Distinguished Scholar of the Max Planck Institute for Quantum Optics, Munich, Germany

2018: Fellow of the Institute of Electrical and Electronics Engineers (IEEE)

2015: Fellow of the Optical Society of America (OSA)

2015: Fellow of the American Physical Society (APS), Division of Atomic Molecular and Optical Physics

2013: Hans Fischer Senior Fellow at the Institute for Advanced Studies, Technical University of Munich, Germany

2012: Marko V. Jaric Award for outstanding achievements in physics (the top physics prize in Serbia)

2010: Humboldt Prize (Humboldt Research Award), Alexander von Humboldt Foundation, Germany

2009: Teaching Excellence Award, Society of Women Engineers, Stanford University

2008: Chambers Faculty Scholar, Stanford University

2008: DARPA Young Faculty Award

2007: Presidential Early Career Award for Scientists and Engineers (PECASE)

2006: Okawa Foundation Research Grant Recipient

2006: Office of Naval Research Young Investigator Award

2003: Frederick E. Terman Fellowship, Stanford University

2002: Charles Lee Powell Foundation Faculty Award

1996: Postgraduate Research Award (UPRA) from the University of Sydney, Australia

1994: Silver Sign of the University of Nis, awarded to the best university student in the graduating class

1994: Best student at the Faculty of Electronic Engineering, University of Nis, Serbia

1993, 1991: The October Award (the highest award for student achievements at the University of Nis)

1989-1993 Fellowship from the Foundation for Development of Sciences and Arts, Yugoslavia, awarded to most talented high-school and university students in Yugoslavia (awarded as a high-school student, continued throughout university)

Before 1989: a number of top awards in physics and math competitions in Serbia and Former Yugoslavia.

DISTINGUISHED LECTURES

Distinguished Lecture Series, Purdue ECE, September 2026

University of Illinois at Urbana Champaign, Distinguished Colloquium, April 2026

Northwestern Distinguished Seminar Series, April 2026

University of Michigan, ECE Distinguished Seminar, April 2026

Annual Quantum Public Lecture, the Institute for Quantum Science and Technology, the University of Calgary, October 2025

Distinguished Lecture, Munushian Lecturer Series, University of Southern California, Los Angeles, October 2023

Distinguished Speaker , UC Davis ECE , February 2023

Distinguished Speaker Series Seminars, IBM, May 2022

POSTECH Distinguished Lecture, POSTECH, South Korea, April 2022

Dresselhaus Lecture, MIT, November 2021

Charles L. Brown Distinguished Colloquium series, University of Virginia, February 2021

Distinguished Lecturer Seminar, Max Planck Institute for the Science of Light (MPL), Erlangen, Germany, Nov. 2020

Distinguished Grace Hopper Lecture, University of Pensylvania, November 2020

Distinguished Seminar Series in Nanoscience, Kavli Nanoscience Institute (KNI), California Institute of Technology (Caltech), Pasadena, CA, January 2020

ECE Distinguished Colloquium Speaker, Boston University, January 2019

Distinguished Lecture, Munushian Lecturer Series, Electrical Engineering-Electrophysics, University of Southern California, Los Angeles, April 2017

RESEARCH ACTIVITIES & INTERESTS

Research areas: photonics, quantum science and engineering, quantum optics, photonics inverse design, nonlinear optics, cavity QED

Current projects:

- Semiconductor quantum systems (diamond, silicon carbide, and gallium arsenide): cavity QED quantum simulator, quantum networks, quantum sensors
- Heterogeneously integrated, inverse designed photonics (for optical interconnects, computing, sensors)
- On-chip integrated laser systems: Titanium:sapphire lasers, isolators, laser frequency stabilization
- Light-matter interaction: multi-emitter cavity QED, squeezed light driving of cavity QED system, free electron - solid state spins

PROFESSIONAL ACTIVITIES

Advisory roles and boards (present):

Expert panelist, *EPFL School of Engineering valuation committee*, November 2026

Scientific Advisory Board Member*, Munich Center for Quantum Science and Technology (MCQST*), 2026-present

Cofounder and Lead Scientific Advisor– *SPINS Photonics*, 2022-present

Scientific Advisory Committee Member, *ARC Centre of Excellence for Quantum Computer Performance and integration*, 2025-present

Q-FARM – Stanford-SLAC Quantum Science and Engineering Iniative, Advisory Board Member (2024-present)

External Advisory Board of BERLIN QUANTUM, 2024-present

Advisory roles and boards (previous):

ExCom member – QFARM, Stanford-SLAC Quantum Initiative, July 2023-2024

Scientific Advisory Board Member, *Max Planck Institute of Quantum Optics (MPQ), Munich, Germany,* 2015- 2023

National Science Foundation (NSF) Engineering Advisory Committee Member, September 2019-July 2021

ETH Zurich, Physics Department – evaluation committee (October 2020)

Scientific Advisory Board Member, *Ferdinand-Braun Institute, Leibnitz Institute for high frequency techniques, Berlin, Germany,* April 2015-March 2019

Scientific Advisor, *Alphabet X* (2017-2019), *Sandbox AQ* (2022 – 2025), *Viewberty Inc*, (2021-2022), *Luxtera Inc.* (2002)

Stanford SystemX Board Member*, 2015-2021*

Conference organization and other committees

Scientific Program Committee Member, *the International Conference on Laser Spectroscopy (ICOLS2025)*, the Elba Island, Tuscany, Italy, June 2025.

International Organizing Committee Member, *PECS XIII,* March 2023, Tokyo, Japan

Program Committee Member, APS March Meeting, Division of Quantum Information, focus session on "Hybrid Quantum Systems,", Chicago, IL, March 2022

Program Committee Member, *ICOLS (International Conference on Lasers Spectroscopy), Estes Park, CO,* June 2021

Program Committee Member, *Gordon Research Conference on Quantum Science, Stonehill College, Easton, MA,* July 2018

Organizing committee, Stanford Workshop on Optimized, Arbitrary and Reconfigurable Optics, Nov. 2017; Stanford Workshop on Advanced Data Center Architectures and Technologies, Dec. 2018; Stanford Quantum Retreat, Dec. 2018

International Advisory Board Member, *PECS XII* The University of York, UK, April 2016

Quantum Africa II, Sep. 2012, Program Committee member

PECS IX (9th International Conference on Photonic and Electromagnetic Crystal Structures), 2010 – International Organizing Committee Member

CLEO/EQEC Europe 2009 – Semiconductor Lasers Committee Member

QELS 2008 - Subcommittee chair for "Fundamental optics in periodic and random

media"

IEEE LEOS (*Lasers and Electro-Optics Society*) Nanophotonics Committee Member, 2006

Chair of sessions at numerous conferences including Gordon Research Conferences on Quantum Information Science and Plasmonics, CLEO/QELS, IEEE LEOS Annual Meetings, SPIE Annual Meeting - Photonics West, etc.

Co-organizer of the *Stanford Photonics Research Center Annual Symposium* (Sept. 2003, 2005, 2008, 2010, 2012), *Nanophotonics Workshop at Stanford University* (Jan. 2004), *MURI Center for Photonic Quantum Information Systems Kick-Off and Review Meetings* (Oct. 2003, 2006 and 2007), and the *Quantum Repeater Workshop* (Harvard, November 2005).

Journal editorial and other roles

Editorial Board Member, *Proceedings of the National Academy of Sciences (PNAS)*, Oct. 2025-present

Lead Editor, *Physical Review Applied,* August 2024-present

Editorial Advisory Board Member*, Advances in Optics and Photonics, Optica*, Feb. 2024-present

Associate Editor, *ACS Photonics,* January 2018 - July 2024

Editorial Advisory Board Member*, APL Photonics,* July 2019-present

Editorial Advisory Board Member*, NPJ Quantum Information,* Aug. 2014-present

Editorial Advisory Board Member*, ACS Photonics,* Jan. 2014-Dec. 2017

Editorial Advisory Board Member*, Nanophotonics*, May 2012-2025

Editorial Board, New Journal of Physics, Jan. 2014 – Aug. 2014

Co-Editor of the *New Journal of Physics*, Focus Issue on the cavity QED in solids, 2012

Expert Adviser/External Panelist for the Nature Index (Nature Publishing Group), Aug. 2011

Special Issue of the IEEE Journal of Selected Topics in Quantum Electronics (JSTQE) on Quantum and Nanoscale Photonics, 2012 - Primary Guest Editor

Co-Editor of the *New Journal of Physics*, Focus Issue on integrated quantum photonics/optics, 2011

Co-Editor of the *New Journal of Physics*, Focus Issue on Single-Photons on Demand, 2004

Regular reviewer of scientific publications for: *Nature, Science, Nature Physics, Nature Photonics, Nature Materials, Nature Communications, Nature Nanotechnology , Nano Letters, Applied Physics Letters, Physical Review Letters, Physical Reviews A, B, E, X, IEEE Journal of Quantum Electronics and Journal on Selected Topics in Quantum Electronics, Photonics Technology Letters, Optics Letters, Optics Express, New Journal of Physics,* etc.

Outreach

Speaker and Panelist at various professional events at Stanford and outside, including:

Panelist at *Optica Quantum 2.0,* Panel on *Quantum Technologies: Opportunities and Challenges in Distributed Quantum Systems*, San Francisco, CA, June 2025

Zero Knowledge (ZK) Podcast on Quantum Engineering, April 2025

CLEO 2021 Special Event "Optimizing Career Paths in Optics: The Guide for Young Professionals,"

Future of Everything radio show, Sirius XM, Stanford, Nov. 2019

"Quantum Computing: will it work and when", CLEO, 2019

"What is next in integrated photonics," CLEO 2019

Rising Stars Workshop, Stanford, November 2017

Reddit, Ask me Anything (AMA) host, organized by the Optical Society of America, February 2017

Advisor for Stanford Women in Engineering (WEE) Society (2005-present)

Optics and math outreach at local elementary schools and preschools; organized Science Night 3 years in a row at a local public elementary school

TEACHING AND COURSE DEVELOPMENT

Stanford University, 2003-present:
Introduced, developed, and taught one graduate and three undergraduate classes:

- "Quantum Photonics*"* (EE340)
- "Introduction to nanophotonics and nanostructures" (EE136)
- "Freshman seminar: From science fiction to science and engineering" (EE016N)
- Introduction to electromagnetics and its applications (EE42)

Also lectured and helped develop the following classes:

- Applied Quantum Mechanics I (EE222)
- Applied Quantum Mechanics II (EE223)
- Photonics Laboratory (EE234)
- Engineering electromagnetics (EE141/EE142)
- Optics and Quantum Electronics Seminar (AP483)

California Institute of Technology (1996-2001):
Teaching assistant for Solid-state physics (APh114abc), Solid-state devices (EE/APh180), Solid-state electronics for integrated circuits laboratory (APh9)

University of Sydney (1996) and *University of Nis, Serbia* (1994-1995):
Teaching assistant for a number of courses on solid-state devices, analog and digital circuits.

MENTORING and ADVISING

Present and former PhD students (Stanford University, 2003-present)

1. Hatice Altug (PhD Appl. Phys., 2006): Professor, Bioengineering, EPFL
2. Dirk Englund (PhD Appl. Phys., 2008): Associate Professor, Electrical Engineering and Computer Science, MIT
3. Ilya Fushman (PhD Appl. Phys., 2008): General partner at Kleiner Perkins
4. Andrei Faraon (PhD Appl. Phys., 2009): Professor of Applied Physics, Materials Science, and Biomedical Engineering, Caltech
5. Maria Makarova (PhD EE, 2010): Founder and President, Mentoralia A. C., Mexico
6. Yiyang Gong (PhD EE, 2010): Associate Professor of Cell Biology, the University of Oklahoma
7. Bryan Ellis (PhD EE, 2011): Senior Hardware Development Engineer, Infinera
8. Kelley Rivoire (PhD EE, 2012): Scientist, Anthropic
9. Arka Majumdar (PhD EE, 2012): Professor of Electrical Engineering and Physics, University of Washington, Seattle
10. Gary Shambat (PhD EE, 2013): Group product manager , Coinbase
11. Jesse Lu (PhD EE, 2013): Founder and CEO, Spins Photonics Inc
12. Sonia Buckley (PhD Appl. Phys., 2014): Research Scientist, NIST, Boulder
13. Armand Rundquist (PhD EE, 2015): Hardware Development Engineer at Infinera
14. Jan Petykiewitz (PhD EE, 2016): Hardware Engineer, Platform Optics Group, Google
15. Marina Radulaski (PhD Appl. Phys., 2016): Associate Professor, ECE, UC Davis
16. Yousif Kelaita (PhD EE, 2018): Hardware Engineer, Google
17. Kevin Fischer (PhD EE, 2018): Founder and CEO, Illusion of Life
18. Alexander Piggott (PhD EE, 2018): Hardware Engineer - Advanced LiDAR at Waymo
19. Linda Zhang (PhD Appl. Phys., 2019): Hardware engineer, Waymo
20. Constantin Dory (PhD EE, 2020): Hardware Engineer, Apple
21. Logan Su (PhD Appl. Phys, 2020): Algorithm Engineer, Hudson River Trading
22. Neil Sapra (PhD Physics, 2020): Photonic Design Engineer, Ayar Labs
23. Rahul Trivedi (PhD EE, 2020): Senior Group Leader, Max Planck Institute for Quantum Optics
24. Daniil Lukin (PhD EE, 2022): Postdoctoral Scholar, Harvard
25. Alison Rugar (PhD Appl. Phys, 2022): Photonics Engineer, Apple
26. Jinhie Lee Skarda (PhD EE, 2022): Photonics Engineer, Apple
27. Guillermo Angeris (PhD EE, 2022): Head of research, Bain Capital Crypto
28. Melissa Guidry (PhD APh, 2023): Postdoctoral Scholar, MIT

29. Alex White (PhD EE, 2024): Postdoctoral Scholar, Stanford
30. Geun Ho Ahn (PhD EE, 2024): Postdoctoral Scholar, Stanford
31. Sattwik Deb Mishra (PhD EE, 2024): Research scientist, Microsoft
32. Joshua Yang (PhD EE, 2024): CEO, Brightlight Photonics
33. Hope Lee (PhD Appl. Phys. 2025): Postdoctoral Scholar, Duke University
34. Yakub Grzesik (PhD EE, expected 2026)
35. Dominic Catanzaro (PhD EE, expected 2026)
36. Hannah Kleidermacher (PhD EE, expected 2027)
37. Abigail Stein (PhD Appl. Phys., expected 2027)
38. Sungjun Eun (PhD EE, expected 2028)
39. Sydney Mason (PhD EE, expected 2028)
40. Louise Schull (PhD EE, expected 2028)
41. Kien Trung (PhD Appl. Phys., expected 2028)
42. Richard Luhtaru (PhD Appl. Phys., expected 2028)
43. Roman Dimov (PhD EE, expected 2029)
44. Dominik Buhl (PhD EE, expected 2030)
45. Gerald Xu (PhD Appl. Phys., expected 2030)
46. Alex Sun (PhD EE, expected 2030)

Present and former MSc students

1. Nicolas Manquest (MSc EE 2010); now a research engineer at Astrium, France
2. Eliza Cornell, EE co-term MSc, 2018-2019; now a PhD student at Harvard
3. Guillermo Andres Angeris, EE co-term MSc, MSc thesis (co-advised with Stephen Boyd), 2017-2018; now head of crypto at Bain Capital
4. William Jarrett, EE MSc student, 2022-2024; now at US Navy
5. Jean-Michel Borit, EE MSc student, 2024-2025; now PhD student at Harvard

Present and former postdocs, research scientists and engineers

1. Edo Waks (2003-2006): Professor of Electrical and Computer Engineering, University of Maryland and JQI
2. Vanessa Sih (2007-2008): Professor of Physics, University of Michigan
3. Erik Kim (2009-2011): Hardware Engineer, Waymo
4. Michal Bajcsy (2010-2013): Associate Professor, Institute for Quantum Computing (IQC) and Electrical and Computer Engineering, University of Waterloo, Canada
5. Tom Babinec (2012-2015): Scientist, Northrop Grumman
6. Kai Mueller (2013-2015): Assistant Professor of Electrical Engineering, Technical University Munich, Germany
7. Konstantinos Lagoudakis (2012-2017): Associate Professor of Physics, University of Strathclyde, Glasgow, UK
8. Tomas Sarmiento (2013-2018): Laser Engineer, Apple
9. Shuo Sun (2017-2020): Assistant Professor of Physics, JILA and UC Boulder
10. Eric Yue Ma (2018-2021): Assistant Professor of Physics and EE, UC Berkeley
11. Jean-Philippe MacLean (2020): Scientist, GHGSat, Montreal, Canada
12. Dries Vercruysse (2016-2020): Optical design engineer, Ayar Labs
13. Shahriar Aghaeimeibodi (2020-2021): Quantum Research Scientist, Amazon

14. Kiyoul Yang (2018-2022): Assistant Professor, Harvard University
15. Daniel Riedel (2020-2022): Quantum Research Scientist, Lightsync
16. Jesse Lu (2020-2022): Founder and CTO, Spins Photonics, Inc.
17. Hyounghan Kwon (2021-2022): Research Scientist, Korea Institute of Science and Technology (KIST)
18. Chris Anderson (2021-2023): Assistant Professor, University of Illinois at Urbana-Champaign
19. Kasper Van Gasse (2021-2024): Associate Professor, University of Ghent & IMEC
20. Daniil Lukin (2022-2024): Postdoctoral Scholar, Harvard
21. Melissa Guidry (2023-2024): Postdoctoral Scholar, MIT
22. Eran Lustig (2022-2026): Assistant Professor, Technion
23. Eric Rosenthal (2021-2025): Research Scientist, Sygaldry
24. Souvik Biswas (2023-2026): Incoming Assistant Professor, University of Michigan
25. Charles Rogues-Carmes (2023-2026): Incoming Assistant Professor, ISTA
26. Giovanni Scuri (2022-)
27. Jamison Sloan (2024-)
28. Geun Ho Ahn (2024-)
29. Guido van de Stolpe (2024-)
30. Max Drimmer (2026-)

Present and former undergraduate researchers (long term/honors thesis only)

1. Joel Goh (2015-2016) - EE honors thesis. Present position: Associate Professor, National University Singapore
2. Jean-Michel Borit (2021-2024) - Physics Honors thesis. Present position: PhD student at Harvard

OTHER INTERESTS AND SKILLS

Languages: Serbian (native), English (fluent), French (intermediate).

PUBLICATIONS

As of February 2026, >290 published in refereed journals. Work cited >50000 times, h-index of 109 (Google Scholar)
18 book chapters
22 issued US patents, ~10 pending, ~10 disclosures
Over 500 invited talks, >70 plenary, keynote talks and distinguished lectures

For detailed list and to download publications, please visit
https://profiles.stanford.edu/jelena-vuckovic

PUBLICATIONS LIST

REFEREED JOURNAL PUBLICATIONS

Submitted

1. "A general framework for interactions between electron beams and quantum optical systems," Jakob M. Grzesik, Aviv Karnieli, Charles Roques-Carmes, Dylan S. Black, Trung Kien Le, Olav Solgaard, Shanhui Fan, and Jelena Vuckovic, submitted to *Physical Review Letters* (2026) [arxiv: 2601.21385]
2. "Single-Chip 1 Tb/s Optical Receiver for High-Speed Optical links," Ali Pirmoradi, Zhehao Yu, Amirreza Shoobi, Geun Ho Ahn, Jelena Vučković, Firooz Aflatouni, submitted to *Nature Electronics* (2026) [arxiv: 2601.07709]
3. "Quantum Nanophotonic Interface with Tin-Vacancy Centers in Thin-Film Diamond," Hope Lee, Hannah C. Kleidermacher, Abigail J.M. Stein, Hyunseok Oh, Lillian Hughes, Casey Kim, Luca Basso, Andy Mounce, Shei S. Shu, Michael Titze, Ania B. Jayich, and Jelena Vuckovic, submitted to *Physical Review X* (2025) [arxiv: 2511.05740]
4. "Single chip 1 Tb/s optical transmitter with inverse designed input/output couplers," Kaisarbek Omirzakhov, Ali Pirmoradi, Geun Ho Ahn, Amirreza Shoobi, Han Hao, Jelena Vuckovic, and Firooz Aflatouni, submitted to *Nature Electronics* (2025) [arxiv: 2510.12163]
5. "Quantum sensing with a spin ensemble in a two-dimensional material" Souvik Biswas, Giovanni Scuri, Noah Huffman, Eric I. Rosenthal, Ruotian Gong, Thomas Poirier, Xingyu Gao, Sumukh Vaidya, Abigail Stein, Tsachy Weissman, James H. Edgar, Tongcang Li, Chong Zu, Jelena Vuckovic, and Joonhee Choi, submitted to *Nature* (2025) [arxiv:2509.08984]
6. "Variational processing of multimode squeezed light," Aviv Karnieli, Paul Alexis Mor, Charles Roques-Carmes1, Eran Lustig, Jamison Sloan, Jelena Vuckovic, David A. B. Miller, and Shanhui Fan, submitted to *PRX Quantum,* (2025) [arXiv:2509.16753]
7. "Quantum sensing of electron beams with solid-state spins," Jakob M. Grzesik, Dominic Catanzaro, Charles Roques-Carmes, Eric I. Rosenthal, Guido L. van de Stolpe, Aviv Karnieli, Giovanni Scuri, Souvik Biswas, Kenneth J. Leedle, Dylan S. Black, Robert L. Byer, Ido Kaminer, R. Joel England, Shanhui Fan, Olav Solgaard, and Jelena Vuckovic, under review in *Proceedings of National Academy of Sciences*, (2025) [arxiv: 2508.13112]
8. "High performance wavelength division multiplexers enabled by co-optimized inverse design," Sydney Mason, Geun Ho Ahn, Jakob Grzesik, Sungjun Eun, and Jelena Vuckovic, under review in *Nature Communications*, arXiv:2509.07233 (2025)
9. "Mesoscopic cavity quantum electrodynamics with phase-disordered emitters in a Kerr nonlinear resonator," Daniil M. Lukin*, Bennet Windt*, Miguel Bello*, Dominic Catanzaro*, , Melissa A. Guidry, Eran Lustig, Souvik Biswas, Giovanni Scuri, Trung Kien Le, Joshua Yang, Arina A. Nikitina, Misagh Ghezellou, Hiroshi Abe, Takeshi Ohshima, Jawad Ul-Hassan, and Jelena Vuckovic, under review in *Nature Physics* (2025) [arXiv:2504.09324]

10. "Tunable vector beam decoder by inverse design for high-dimensional quantum key distribution with 3D polarized spatial modes," Eileen Otte, Alexander D. White, Nicholas A. Gusken, Jelena Vuckovic, and Mark L. Brongersma, (2023) [arXiv:2304.12296v2]

Published

1. "Inverse design for scalable photonic systems," Louise Schul, Sydney Mason, Sungjun Eun, Geun Ho Ahn, Jelena Vuckovic, to appear in *Nature Review Materials* [invited review article] (2025) [arXiv:2602.18666]
2. "Three Wave Mixing Element with Quantum Paraelectric Materials," Eric I. Rosenthal, Christopher S. Wang, Jamison Sloan, Giovanni Scuri, Yueheng Shi, Kaveh Pezeshki, Peter Mugaba Noertoft, Jelena Vuckovic, and Christopher P. Anderson, *Physical Review Applied,* vol. 25, 0244091 (2026)
3. "Many-Body Entanglement in Solid-State Emitters," Emma Daggett, Christian M. Lange, Bennet Windt, Arshag Danageozian, Alexander Senichev, Jordi Arnau Monta-Lopez, Chanchal, Kinjol Barua, Xingyu Gao, Zhaoyun Zheng, Vijin Kizhake Veetil, Souvik Biswas, Jonas M. Peterson, Na Liu, Chuchuan Hong, Teri Odom, Matthew Pelton, Tongcang Li, Jelena Vučković, Vladamir M. Shalaev, Alexandra Boltasseva, Sophia E. Economou, Jonathan D. Hood, Valentin Walther, Rahul Trivedi, Libai Huang, *Nature Review Materials,* https://doi.org/10.1038/s41578-026-00893-8 (2026)
4. "Challenges and Opportunities for Quantum Information Hardware," David D. Awschalom, Hannes Bernien, Ronald Hanson, William Oliver, Jelena Vuckovic, *Science* Vol. 390, pp. 1004-1010, DOI:10.1126/science.adz8659 (2025) [invited review]
5. "A systolic update scheme to overcome memory bandwidth limitations in GPU-accelerated FDTD simulations," Jesse Lu, David Qu, Jim Qu, Ryan Fong, Geun Ho Ahn, Jelena Vuckovic, to appear in *IEEE Antennas and Propagation Magazine, special issue on "Advanced Electromagnetics Methods for Practical Engineering Applications*" (2025) [arxiv: 2502.20610]
6. "Cavity Quantum Electrodynamics in Finite-Bandwidth Squeezed Reservoir," Trung Kien Le, Daniil Lukin, Charles Roques-Carmes, Aviv Karnieli, Eran Lustig, Melissa Guidry, Shanhui Fan, and Jelena Vuckovic, *Physical Review Applied* 24, 034053 (2025) [arxiv:2412.15068]
7. "Quadrature Dependent Lattice Dynamics of Dissipative Microcomb," Eran Lustig, Melissa Guidry, Daniil Lukin, Shanhui Fan, Jelena Vuckovic, *Nature Photonics, vol.* 19, pages 1247–1254 (2025)
8. "Quantum critical electro-optic and piezo-electric nonlinearities," Christopher P. Anderson*, Giovanni Scuri*, Aaron Chan, Sungjun Eun, Alexander White, Geun Ho Ahn, Christie Jilly-Rehak, Amir Safavi-Naeini, Kasper Van Gasse, Lu Li, and Jelena Vuckovic, *Science,* vol. 390, No. 6771, pp. 394-399 (2025)
9. "Quantum sensitivity of parametric oscillators," Alex Gu, Jamison Sloan, Charles Roques-Carmes, Seou Choi, Eric I. Rosenthal, Michael Horodynski, Yannick Salamin, Jelena Vuckovic, and Marin Soljacic, *Physical Review Research,* vol 7, article L022056, DOI: 10.1103/PhysRevResearch.7.L022056 (2025) [arXiv:2412.02887]

10. "Ultralow Dissipation Nanomechanical Devices from Monocrystalline Silicon Carbide," Leo Sementilli, Daniil M. Lukin, Hope Lee, Erick Romero, Jelena Vuckovic, and Warwick P. Bowen, *Nano Letters, ASAP, DOI:* 10.1021/acs.nanolett.4c06475 (2025) [arXiv:2404.13893]
11. "High-Quality GaP(111) Grown by Gas-Source MBE for Pho-2 tonic Crystals and Advanced Nonlinear Optical Applications," Karin Hestroffer, Kelley Rivoire, Jelena Vuckovic, and Fariba Hatami, *Nanomaterials* 2025, *15*(8), 619 (2025) [invited paper, Special Issue Light-Matter Interaction in Nano Systems: Fundamentals and Applications] https://doi.org/10.3390/nano15080619
12. "Rapid, Sensitive Detection of Protein Biomarkers in Minimally-Processed Blood Products with a Monolithic Sandwich Immunoassay Reagent," Nicolo Maganzini, Agnes Reschke, Alyssa Cartwright, Yasser Gidi, Ian Thompson, Amani Hariri, Constantin Dory, Yael Rosenberg Hasson, Jing Pan, Michael Eisenstein, Jelena Vuckovic, Tomothy Thomas Cornell, Hyongsok Tom Soh, *Advanced Materials,* doi: 10.1002/adma.202412613 (2025)
13. "Cavity – waveguide coupling modulation via superradiant microring arrays, Andrew Tang, Romil Audhkhasi, Abhi Saxena, Virat Tara, Geun Ho Ahn, Jelena Vučković, and Arka Majumdar, *ACS Photonics* Article ASAP, DOI: 10.1021/acsphotonics.4c02030 (2025)
14. "Single-Shot Readout and Weak Measurement of the Tin-Vacancy Qubit in Diamond," Eric I. Rosenthal, Souvik Biswas, Giovanni Scuri, Hope Lee, Abigail J. Stein, Hannah C. Kleidermacher, Jakob Grzesik, Alison E. Rugar, Shahriar Aghaeimeibodi, Daniel Riedel, Michael Titze, Edward S. Bielejec, Joonhee Choi, Christopher P. Anderson, and Jelena Vuckovic, *Physical Review X,* vol. 14, 041008 (2024)
15. "Unified laser stabilization and isolation on a silicon chip," Alexander D. White, Geun Ho Ahn, Richard Luhtaru, Joel Guo, Theodore J. Morin, Abhi Saxena, Lin Chang, Arka Majumdar, Kasper Van Gasse, John E. Bowers, Jelena Vuckovic, *Nature Photonics*, vol. 18, pages 1305–1311 (2024)
16. "Titanium:sapphire on insulator integrated lasers and amplifiers," Joshua Yang, Kasper Van Gasse, Daniil Lukin, Melissa Guidry, Geun Ho Ahn, Alexander White, Jelena Vuckovic, *Nature*, vol. 630, pp. 853–859 (2024)

    Featured in Stanford Report, Phys.org, Eurekalert, Physics World etc. Selected as one of top 10 physics breakthroughs for 2024 by Physics World
17. "Nonlinear Mid-infrared Meta-membranes," Giovanni Satrorello, Joshua Bocanegra, David Knez, Daniil M. Lukin, Joshua Yang, Jelena Vučković, Dmitry Fishman, Gennady Shvets, Maxim R. Shcherbakov, *Nanophotonics,* https://doi.org/10.1515/nanoph-2024-0203 (2024) [invited paper]
18. Amani A. Hariri, Alyssa Cartwright, Constantin Dory, Wade K. Morishita, Yasser Gidi, Steven Yee, Kaiyu Fu, Kiyoul Yang, Nicolò Maganzini, Brian E. Young, Daniel Cardozo Pinto, Mathew B. Pomrenze, Behrad Habib Afshar, Michael Eisenstein, Michel Digonnet, Robert Malenka, Jelena Vuckovic, H. Tom Soh, "Modular Aptamer Switches for continuous optical detection of small-molecule analytes in complex media," *Advanced Materials*, https://doi.org/10.1002/adma.202304410 (2023)
19. Daniel Riedel, Hope Lee, Jason F. Herrmann, Jakob Grzesik, Vahid Ansari, Jean-Michel Borit, Hubert Stokowski, Shahriar Aghaeimeibodi, Haiyu Lu, Zhi-Xun Shen, Amir H.

Safavi-Naeini, and Jelena Vuckovic, "Efficient Photonic Integration of Diamond Color Centers and Thin-Film Lithium Niobate," *ACS Photonics,* https://doi.org/10.1021/acsphotonics.3c00992 (2023)

20. Kinfung Ngan, Yuan Zhan, Constantin Dory, Jelena Vučković, and Shuo Sun, "Quantum Photonic Circuits Integrated with Color Centers in Designer Nanodiamonds," *Nano Letters* https://doi.org/10.1021/acs.nanolett.3c02645 (2023) [arXiv:2307.13309]
21. Ian A.P. Thompson, Jason Saunders, Liwei Zheng, Amani A. Hariri, Nicolò Maganzini, Alyssa P. Cartwright, Jing Pan, Steven Yee, Constantin Dory, Michael Eisenstein, Jelena Vuckovic, Hyongsok Tom Soh, "An Antibody-Based Molecular Switch for Continuous Small Molecule Biosensing," *Science Advances,* vol. 9, Issue 38, DOI: 10.1126/sciadv.adh4978 (2023)
22. Ryan J. Gelly, Alexander D. White, Giovanni Scuri, Xing Liao, Geun Ho Ahn , Bingchen Deng, Kenji Watanabe, Takashi Taniguchi, Jelena Vuckovic, Hongkun Park, "An inverse-designed nanophotonic interface for excitons in atomically thin materials," *Nano Letters ASAP,* DOI: 10.1021/acs.nanolett.3c02931 (2023)
23. Eric I. Rosenthal, Christopher P. Anderson,1 Hannah C. Kleidermacher, Abigail Stein, Hope Lee, Jakob Grzesik, Giovanni Scuri, Alison E. Rugar, Daniel Riedel, Shahriar Aghaeimeibodi, Geun Ho Ahn, Kasper Van Gasse, and Jelena Vuckovic, "Microwave Spin Control of a Tin-Vacancy Qubit in Diamond," *Physical Review X, vol. 13,* article 031022 (2023)
24. Joshua Yang, Melissa A. Guidry, Daniil M. Lukin, Kiyoul Yang, and Jelena Vuckovic, "Inverse-designed Silicon Carbide Quantum and Nonlinear Photonics," *Light: Science & Applications,* vol. 12, Article number: 201, https://doi.org/10.1038/s41377-023-01253-9 (2023)
25. Guillermo Angeris, Theo Diamandis, Jelena Vučković, Stephen Boyd, "Bounds on Efficiency Metrics in Photonics,"*ACS Photonics,* https://doi.org/10.1021/acsphotonics.3c00023 (2023)
26. G. Spektor, D. Carlson, Z. Newman, J.L. Skarda, N. Sapra, L. Su, S. Jammi, A. R. Ferdinand, A. Agrawal, J. Vučković, and S. B. Papp, "Universal visible emitters in nanoscale integrated photonics," *Optica,* vol. 10, No. 7, pp. 871-879 (2023)
27. Melissa A. Guidry, Daniil M. Lukin, Ki Youl Yang, and Jelena Vuckovic, "Multimode squeezing in soliton crystal microcombs," *Optica,* vol. 10, No. 6, pp. 694-701 (2023)
28. Henry Carfagno, Melissa Guidry, Joshua Yang, Lauren McCabe, Joshua Zide, Jelena Vuckovic, and Matthew F. Doty, "Inverse designed couplers for use in GaAs Photonics," *ACS Photonics,* https://doi.org/10.1021/acsphotonics.2c01864 (2023)
29. Daniil M. Lukin, Melissa A. Guidry, Joshua Yang, Misagh Ghezellou, Sattwik Deb Mishra, Hiroshi Abe, Takeshi Ohshima, Jawad Ul-Hassan, and Jelena Vuckovic, "Two-emitter multi-mode cavity quantum electrodynamics in thin film silicon carbide photonics," *Physical Review X,* vol. 13, 011005 (2023)
30. Geun Ho Ahn, Alexander D. White, Hyungjin Kim, Naoki Higashitarumizu, Felix M. Mayor, Jason F. Herrmann, Wentao Jiang, Kevin K. S. Multani, Amir H. Safavi-Naeini, Ali Javey, Jelena Vuckovic, "Platform-agnostic waveguide

integration of high-speed photodectors with evaporated tellurium thin films," *Optica*, vol. 10, No. 3, pp. 349-355 (2023)

31. K.Y.Yang, C.Shirpurkar, A.D.White, J. Zhang, L.Chang, F.Ashtiani, M. A. Guidry, D. M. Lukin, S.V.Pericherla, J. Yang, H. Kwon, J. Lu, G.H. Ahn, K. Van Gasse, Y. Jin, S.P. Yu, T.C. Brilles, J. R. Stone, D.R.Calson, H.Song, K.Zou, H.Zhou, K.Pang, H. Hao, L. Trask, M. Li, A.Netherton, L. Rechtman, J. S. Stone, J.Skarda, L.Su, D.Vercruysse, J.P. W. MacLean, S.Aghaeimeibodi, M. J. Li, D.A.B.Miller, D. Marom, A.E.Willner, J.E.Bowers, S.B. Papp, P. J. Delfyett, F.Aflatouni, and J.Vuckovic, "Multi-dimensional data transmission using inverse-designed silicon photonics and microcombs," *Nature Communications,* vol. 13, 7862 (2022)
32. Alexander D. White, Logan Su, Daniel I. Shahar, Ki Youl Yang, Siddharth Ramachandran, Jelena Vuckovic, "Inverse Design of Optical Vortex Beam Emitters," *ACS Photonics*, DOI:10.1021/acsphotonics.2c01007 (2022)
33. Alexander D. White, Geun Ho Ahn, Kasper Van Gasse, Ki Youl Yang, Lin Chang, Theodore J. Morin, John E. Bowers, Jelena Vuckovic, "Integrated Passive Nonlinear Optical Isolators," *Nature Photonics,* vol. 17, pp. 143–149 (2023)

    Featured in Stanford News, Phys.org, Photonics.com, Optics.org,…
34. Raphael Nold, Charles Babin, Joel Schmidt, Tobias Linkewitz, María T. Pérez Zaballos, Rainer Stöhr, Roman Kolesov, Vadim Vorobev, Daniil Lukin, Rüdiger Boppert, Stefanie Barz, Jelena Vuckovic, Christof Gebhardt, Florian Kaiser, Jörg Wrachtrup, "Quantum Optical Microphone in the Audio Band," *PRX Quantum*, vol. 3, 020358 (2022)
35. A.D. White, R. Trivedi, K. Narayanan, J.Vuckovic , "Enhancing Superradiance in Spectrally Inhomogeneous Cavity QED Systems with Dynamic Modulation," *ACS Photonics*, vol. 9, No. 7, pp. 2467–2472 (2022)
36. C. Shirpurkar, J. Zhang," K. Y. Yang, D. Carlson, S.P. Yu, E. Lucas, S.V. Pericherla, J. Yang, M. Guidry, D. Lukin, G.H. Ahn, J. Lu, L. Trask, F. Aflaouni, J. Vuckovic, S.B. Papp, and P. J. Delfyett, "Photonic crystal resonators for inverse-designed multi-dimensional optical interconnects," *Optics Letters,* vol. 47, No. 12. Pp. 3063-3066 (2022)

    Featured in Optics & Photonics News, Eurekalert, Phys.org, Optica, ….
37. Avik Dutt, Luqi Yuan, Ki Youl Yang, Kai Wang, Siddharth Buddhiraju, Jelena Vuckovic, and Shanhui Fan, "Creating boundaries along a synthetic frequency dimension," *Nature Communications,* Vol. 13, Article number: 3377 (2022)
38. Geun Ho Ahn, Ki Youl Yang, Rahul Trivedi, Alexander D. White, Logan Su, Jinhie Skarda and Jelena Vuckovic, "Photonic Inverse Design of On-Chip Microresonators," *ACS Photonics,* DOI:10.1021/acsphotonics.2c00020 (2022)
39. Jinhie Skarda, Rahul Trivedi, Logan Su, Diego Ahmad-Stein, Hyounghan Kwon, Seunghoon Han, Shanhui Fan, and Jelena Vuckovic, "Low Overhead Distribution Strategy for Simulation of Large-Area Metasurfaces," *npj Computational Materials,* **vol. 8**, Article number 78, DOI 10.1038/s41524-022-00774-y (2022)

40. Rahul Trivedi, Kevin Fischer, Shanhui Fan, and Jelena Vuckovic, "Few-particle scattering from localized quantum systems in spatially structured bosonic baths," *Quantum, vol. 6, pp.* 691, DOI: https://doi.org/10.22331/q-2022-04-15-691 (2022)

41. Melissa A. Guidry, Daniil M. Lukin, Ki Youl Yang, Rahul Trivedi, and Jelena Vuckovic, "Quantum optics of soliton combs," *Nature Photonics, vol.* 16, pp. 52–58 (2022)

    Also featured in Stanford News: "A quantum view of combs of light," by Taylor Kubota (Dec. 2021)

42. Dries Vercruysse, Neil V. Sapra, Ki Youl Yang, and Jelena Vuckovic, "Inverse designed photonic crystal devices for optical beam steering," *ACS Photonics* https://doi.org/10.1021/acsphotonics.1c01119 (2021) [arXiv:2102.00681]

43. Sattwik Deb Mishra, Rahul Trivedi, Amir H. Safavi-Naeini, and Jelena Vuckovic, "Control design for inhomogeneous broadening compensation in single photon transducers," *Physics Review Applied,* vol. 16, 044025 (2021)

44. Alison E. Rugar, Shahriar Aghaeimeibodi, Daniel Riedel, Constantin Dory, Haiyu Lu, Patrick J. McQuade, Zhi-Xun Shen, Nicholas A. Melosh, and Jelena Vuckovic, "A Quantum Photonic Interface for Tin-Vacancy Centers in Diamond," *Physical Review X,* vol. 11, 031021 (2021)

    See also a Physics Viewpoint: "Tin Qubits Give Diamond a New Shine," Evangelia Takou and Sophia E. Economou, *Physics* 14, 105 (2021)

45. Guillermo Angeris, Jelena Vuckovic, Stephen Boyd, "Convex restrictions in physical design," *Scientific Reports,* vol. 11, article 12976 (2021)

46. Rahul Trivedi, Daniel Malz, Shanhui Fan and Jelena Vuckovic, "Optimal two-photon excitation of bound states in non-Markovian waveguide QED," *Physical Review A,* vol. 104, 013705 (2021) [arXiv:2009.08602]

47. Shahriar Aghaeimeibodi, Daniel Riedel, Alison E. Rugar, Constantin Dory, and Jelena Vuckovic, "Electrical control of tin-vacancy centers in diamond," *Physical Review Applied*, vol. 15, 064010 (2021) [editor's suggestion]

48. Leo Yu, Minda Deng, Jingyuan Linda Zhang, Sven Borghardt, Beata Kardynal, Jelena Vučković, and Tony F. Heinz, "Site-Controlled Quantum Emitters in Monolayer MoSe2," *Nano Letters,* vol. 21, pp. 2376-2381, https://doi.org/10.1021/acs.nanolett.0c04282 (2021)

49. Kai Wang, Avik Dutt, Ki Youl Yang, Casey Wojcik, Jelena Vuckovic, and Shanhui Fan, "Generating arbitrary topological windings of a non-Hermitian band," *Science,* Vol. 371, Issue 6535, pp. 1240-1245, DOI: 10.1126/science.abf6568 (2021)

50. Guillermo Angeris, Jelena Vuckovic, Stephen Boyd, "Heuristic Methods and Performance Bounds for Photonics Inverse Design," *Optics Express* vol. 29, No. 2, pp. 2827-2854, (2021) [invited review article]

51. Daniil M. Lukin, Melissa A. Guidry, and Jelena Vuckovic, "Integrated quantum photonics with silicon carbide: challenges and prospects," *Physical Review X Quantum,* vol. 1, 020102 (2020) [invited perspective article]

52. Ehud Altman, Kenneth R. Brown, Giuseppe Carleo, Lincoln D. Carr, Eugene Demler, Cheng Chin, Brian DeMarco, Sophia E. Economou, Mark Eriksson, Kai-Mei C. Fu, Markus Greiner, Kaden R. A. Hazzard, Randall G. Hulet, Alicia J. Kollar, Benjamin Lev, Mikhail Lukin, Ruichao Ma, Xiao Mi, Shashank Misra, Chris Monroe, Kater Murch, Zaira Nazario, Kang-Kuen Ni, Andrew C. Potter, Pedram Roushan, Mark Saffman, Monika Schleier-Smith, Irfan Siddiqi, Raymond Simmonds, Meenakshi Singh, I. B. Spielman, Kristan Temme, David S. Weiss, Jelena Vuckovic, Vladan Vuletic, Jun Ye, and Martin Zwierlein, "Quantum Simulators: Architectures and Opportunities," *Physical Review X Quantum,* vol. 2, 017003 (2021)

53. David Awschalom, Karl K. Berggren, Hannes Bernien, Sunil Bhave, Lincoln D. Carr, Paul Davids, Sophia E. Economou, Dirk Englund, Andrei Faraon, Marty Fejer, Saikat Guha, Martin V. Gustafsson, Evelyn Hu, Liang Jiang, Jungsang Kim, Boris Korzh, Prem Kumar, Paul G. Kwiat, Marko Lončar, Mikhail D. Lukin, David A. B. Miller, Christopher Monroe, Sae Woo Nam, Prineha Narang, Jason S. Orcutt, Michael G. Raymer, Amir H. Safavi-Naeini, Maria Spiropulu, Kartik Srinivasan, Shuo Sun, Jelena Vučković, Edo Waks, Ronald Walsworth, Andrew M. Weiner, Zheshen Zhang, "Development of Quantum Inter-Connects (QuICs) for Next-Generation Information Technologies," *Physical Review X Quantum,* vol. 2, 017002 (2021)

54. Mahla Pudineh, Caitlin L. Maikawa, Eric Yue Ma, Jing Pan, Dan Mamerow, Yan Han, Sam Baker, Ahmad Beirami, Michael Eisenstein, Seung Kim, Jelena Vuckovic, Eric A. Appel, Hyongsok Tom Soh, "A fluorescence sandwich immunoassay for the real-time continuous detection of glucose and insulin in live animals," *Nature Biomedical Engineering*, vol. **5**, pages 53–63, doi: https://doi.org/10.1101/2020.01.22.916106 (2021)

55. Eva Scholl, Lucas Schweickert, Lukas Hanschke, Katharina D. Zeuner, Friedrich Sbresny, Thomas Lettner, Rahul Trivedi, Marcus Reindl, Saimon Filipe Covre da Silva, Rinaldo Trotta, Jonathan J. Finley, Jelena Vuckovic, Kai Mueller, Armando Rastelli, Val Zwiller, and Klaus D. Jons, "The crux of using the cascaded emission of a 3-level quantum ladder system to generate indistinguishable photons," *Physical Review Letters* vol. 125, 233605 (2020)

56. Hanzhe Liu, Giulio Vampa, Jingyuan Linda Zhang, Yu Shi, Siddharth Buddhiraju, Shanhui Fan, Jelena Vuckovic, Philip H. Bucksbaum, David A. Reis, "Overcoming the absorption limit in high-harmonic generation from crystals," *Physics Communications,* DOI 10.1038/s42005-020-00472-5 (2020)

57. Rahul Trivedi, Alex White, Shanhui Fan, and Jelena Vuckovic, "Analytic and geometric properties of scattering from periodically modulated quantum-optical systems," *Physical Review A,* vol. 102, 033707 (2020)

58. Daniil M. Lukin, Alexander D. White, Melissa A. Guidry, Rahul Trivedi, Naoya Morioka, Charles Babin, Oney Soykal, Jawad Ul-Hassan, Nguyen Tien Son, Takeshi Ohshima, Praful Vasireddy, Mamdouh Nasr, Shuo Sun, Jean-Philippe W. MacLean, Constantin Dory, Emilio A. Nanni, Joerg Wrachtrup, Florian Kaiser, and Jelena Vuckovic, "Spectrally reconfigurable quantum emitters enabled fast optical modulation," *NPJ Quantum Information,* vol. 6, article 80, DOI 10.1038/s41534-020-00310-0 (2020)

59. Alison E. Rugar, Constantin Dory, Shahriar Aghaeimeibodi, Haiyu Lu, Shuo Sun, Sattwik Deb Mishra, Zhi-Xun Shen, Nicholas A. Melosh, and Jelena Vuckovic, "Narrow-linewidth

tin-vacancy centers in a diamond waveguide," *ACS Photonics,* vol. 7, No. 9, pp. 2356-2361 https://dx.doi.org/10.1021/acsphotonics.0c00833 (2020) [arXiv:2005.10385]

60. Melissa Guidry, Kiyoul Yang, Daniil Lukin, Ashot Markosyan, Joshua Yang, Martin Fejer, and Jelena Vuckovic, "Optical parametric oscillation in silicon carbide nanophotonics," *Optica,* vol. 7, No. 9, pp. 1139-1142, https://doi.org/10.1364/OPTICA.394138 (2020)
61. Rahul Trivedi, Guillermo Angeris, Logan Su, Stephen Boyd, Shanhui Fan, Jelena Vuckovic, "Bounds for scattering from absorption-less electromagnetic structures," *Physical Review Applied*, vol. 14, 014025 (2020) [arXiv:2003.00374]
62. Peter Udvarhelyi, Gergio Thiering, Naoya Morioka, Charles Babin, Florian Kaiser, Daniil Lukin, Takeshi Ohshima, Jawad Ul-Hassan, Nguyen Tien Son, Jelena Vuckovic, Joerg Wrachtrup, and Adam Gali, "Vibronic states and their effect on the temperature and strain dependence of silicon-vacancy qubits in 4H silicon carbide, *Physical Review Applied,* vol. 13, 054017 (2020) [arXiv:2001.02459]
63. Ki Youl Yang, Jinhie Skarda, Michele Cotrufo, Avik Dutt, Geun Ho Ahn, Mahmoud Sawaby, Dries Vercruysse, Amin Arbabian, Shanhui Fan, Andrea Alu, and Jelena Vuckovic, "Inverse-designed nonreciprocal switch for chip-based optical ranging ," *Nature Photonics* vol. 14, pp. 369–374 (2020) https://doi.org/10.1038/s41566-020-0606-0 (2020)

    Featured in *Stanford News, ScienceDaily, EurekAlert, Phys.org, Ars Technica etc.*

    Featured in News and Views article "Low-loss nonlinear optical isolators in silicon," Eric Kittlaus, Peter Weigel, William Jones, *Nature Photonics*, vol. **14**, pp. 338–339(2020)
64. Logan Su, Dries Vercruysse, Jinhie Skarda, Neil V. Sapra, Jan Petykiewicz, Jelena Vuckovic, "Nanophotonic Inverse Design with SPINS: Software Architecture and Practical Considerations," *Applied Physics Review,* vol. 7, No. 1, DOI: 10.1063/1.5131263 (2020) [invited article]
65. Alexander Y. Piggott*, Eric Y. Ma*, Logan Su*, Geun Ho Ahn, Neil V. Sapra, Dries J.F. Vercruysse, Andrew M. Netherton, Akhilesh S.P. Khope, John E. Bowers and Jelena Vuckovic, "Inverse-designed photonics for semiconductor foundries," *ACS Photonics*, vol. 7, No. 3, pp. 569-575 https://doi.org/10.1021/acsphotonics.9b01540 (2020)

    Featured by ACS Photonics on the International Day of Light (May 16) as one of the most important contributions to the journal for the last 12 months
66. Alison E. Rugar, Haiyu Lu, Constantin Dory, Shuo Sun, Patrick J. McQuade, Zhi-Xun Shen, Nicholas A. Melosh, and Jelena Vuckovic, "Generation of Tin-Vacancy Centers in Diamond via Shallow Ion Implantation and Subsequent Diamond Overgrowth," *Nano Letters,* vol. 20, 1614-1619, doi: https://doi.org/10.1021/acs.nanolett.9b04495 (2020)
67. Rahul Trivedi, Kevin Fischer, Jelena Vuckovic, Kai Mueller, "Generation of non-classical light using semiconductor quantum dots," *Advanced Quantum Technologies* https://doi.org/10.1002/qute.201900007 (2019) [invited review article]
68. Rahul Trivedi, Logan Su, Jesse Lu, Martin F. Schubert, and Jelena Vuckovic, "Data-driven acceleration of photonic simulations and optimizations," *Scientific Reports, vol. 9, article* 19728 (2019)

69. Fariah Hayee, Leo Yu, Jingyuan Linda Zhang, Christopher, Ciccarino, Minh Nguyen, Igor Aharonovich, Jelena Vuckovic, Prineha Narang, Tony Heinz, Jennifer Dionne, "Revealing multiple classes of stable quantum emitters in hexagonal boron nitride via correlated optical and electron spectroscopy," *Nature Materials,* https://doi.org/10.1038/s41563-020-0616-9 (2020)

70. Neil V. Sapra, Ki Youl Yang, Dries Vercruysse, Kenneth J. Leedle, Dylan S. Black, Logan Su, Rahul Trivedi, Yu Miao, Olav Solgaard, Robert L. Byer, Jelena Vuckovic, "On-chip laser driven particle accelerator," *Science* Vol. 367, Issue 6473, pp. 79-83 (2020)

    Featured in *Stanford News, Scientific American, Vice, Tech Crunch, Popular Mechanics, Optics and Photonics News, Wire, Eurekalert, Phys.org, Physics World, Stanford Daily, EE News, Nature Review Materials, etc*

71. Daniil Lukin, Constantin Dory, Melissa A. Guidry, Ki Youl Yang, Sattwik Deb Mishra, Rahul Trivedi, Marina Radulaski, Shuo Sun, Dries Vercruysse, Geun Ho Ahn, and Jelena Vuckovic, "4H-Silicon-Carbide-on-Insulator for Integrated Quantum and Nonlinear Photonics," *Nature Photonics* **14**, pp. 330–334 (2020) https://doi.org/10.1038/s41566-019-0556-6

    Also featured in the Editorial, "The rise of integrated quantum photonics," *Nature Photonics* **14**, pp. 265(2020), as well as in *Stanford News*.

72. U. Niedermayer, A. Adelmann, R. Aßmann , S. Bettoni, D. S. Black, O. Boine-Frankenheim, P. N. Broaddus, R.L. Byer, M. Calvi, H. Cankaya, A. Ceballos, D. Cesar, B. Cowan, M. Dehler, H. Deng, U. Dorda, T. Egenolf, M. Fakhari , A. Fallahi, S. Fan, E. Ferrari, F. Frei , T. Feurer, J. Harris, I. Hartl, D. Hauenstein, B. Hermann, N. Hiller, T. Hirano, P. Hommelhoff, Y.-C.Huang, Z. Huang, T. W. Hughes, J. Illmer, R. Ischebeck, Y. Jiang, F. Kärtner, W. Kuropka, T. Langenstein, Y. J. Lee, K. Leedle, F. Lemery, A. Li, C. Lomboss , B. Marchetti, F. Mayet, Y. Miao, A. Mittelbach, P. Musumeci, B. Naranjo, A. Piggott, E. Prat, M. Qi, S.Reiche, L. Rivkin, J. Rosenzweig, N. Sapra, N. Schönenberger, X. Shen, R. Shiloh, E.Skär, E. Simakov, O. Solgaard, L. Su, A. Tafel, S. Tan, J. Vuckovic, Z. Wu, H. Xuan, K. Yang, P. Yousefi, Z. Zhao, J. Zhu, "Challenges in simulating beam dynamics of dielectric laser acceleration," *International Journal of Modern Physics*, Vol. 34, 1942031 (2019) [invited article]

73. Dries Vercruysse, Neil V. Sapra, Logan Su, Rahul Trivedi, and Jelena Vuckovic, "Dispersion engineering with photonic inverse design," *IEEE Journal on Selected Topics in Quantum Electronics,* DOI 10.1109/JSTQE.2019.2950803 (2019) [invited article]

74. Rahul Trivedi, Kevin Fischer, Sattwik Mishra, and Jelena Vuckovic, "Point-coupling Hamiltonian for broadband waveguide-based linear optical devices," *Physical Review A,* vol. 100, 043827 (2019)

75. Marina Radulaski, Jingyuan Linda Zhang, Yan-Kai Tzeng, Konstantinos G. Lagoudakis, Hitoshi Ishiwata, Constantin Dory, Kevin A. Fischer, Yousif Kelaita, Shuo Sun, Peter C. Maurer, Kassem Alassaad, Gabriel Ferro, Zhi-Xun Shen, Nicholas Melosh, Steven Chu and Jelena Vučković, "Nanodiamond integration with photonic devices," *Lasers and Photonics Reviews,* 1800316 (2019) [invited]

76. Amr M. Shaltout, Konstantinos G. Lagoudakis, Jorik van de Groep, Soo Jin Kim, Jelena Vuckovic, Vladimir M. Shalaev, and Mark L. Brongersma, "Spatiotemporal Light Control with Frequency-Gradient Metasurfaces," *Science*, vol. 365, pp. 374-377 (2019)
77. Constantin Dory, Dries Vercruysse, Kiyoul Yang, Neil V. Sapra, Alison E. Rugar, Shuo Sun, Daniil M. Lukin, Alexander Y. Piggott, Jingyuan L. Zhang, Marina Radulaski, Konstantinos G. Lagoudakis, Logan Su, and Jelena Vuckovic, "Inverse-Designed Diamond Photonics," *Nature Communications,* vol. 10, 3309 (2019)
78. Rahul Trivedi, Marina Radulaski, Kevin A. Fischer, Shanhui Fan, and Jelena Vuckovic, "Photon blockade in weakly-driven cavity quantum electrodynamics systems with many emitters," *Physical Review Letters*, vol. 122, 243602 (2019)
79. Dries Vercruysse, Neil Sapra, Logan Su, Rahul Trivedi, and Jelena Vuckovic, "Analytical level set fabrication constraints for inverse design" *Scientific Reports*, vol. 9, 8999 (2019)
80. Alison E. Rugar, Constantin Dory, Shuo Sun, and Jelena Vuckovic, "Characterization of Optical and Spin Properties of Single Tin-Vacancy Centers in Diamond Nanopillars," *Physical Review B,* vol. 99, 205417 (2019)
81. Guillermo Angeris, Jelena Vuckovic, and Stephen Boyd, "Computational Bounds on Photonics Design," *ACS Photonics*, *vol.* 65, pp. 1232-1239 (2019)
82. Daniel J. Ironside, Alec M. Skipper, Thomas A. Leonard, Marina Radulaski, Tomas Sarmiento, Pankul Dhingra, Minjoo L. Lee, Jelena Vuckovic, and Seth R. Bank, "High-quality GaAs planar coalescence over dielectric microstructures using an all-MBE approach," *ACS Crystal Growth and Design, Cryst. Growth Des.*, DOI: 10.1021/acs.cgd.8b01671 (2019)
83. Shashank Gupta, Stephanie Tietz, Jelena Vuckovic, and Krishna Saraswat, "A new paradigm for silicon-compatible fabrication of inverse woodpile photonic crystals with a complete band gap," *ACS Photonics,* vol. 6, No. 2, pp 368-373 (2019)
84. Neil V. Sapra, Dries Vercruysse, Logan Su, Kiyoul Yang, Jinhie Skarda, Alexander Y. Piggott, and Jelena Vuckovic "Inverse design and demonstration of broadband grating couplers," *IEEE Journal on Selected Topics in Quantum Electronics,* vol. 25, No. 3, article number 6100207, *DOI* 10.1109/JSTQE.2019.2891402 (2019) [invited paper]
85. Rahul Trivedi, Kevin Fischer, Shanshan Xu, Shanhui Fan, and Jelena Vuckovic, "Few-photon scattering and emission from open quantum systems," *Physical Review B,* vol, 98 144112 (2018)
86. Lukas Hanschke, Kevin A. Fischer, Stefan Appel, Daniil Lukin, Jakob Wierzbowski, Shuo Sun, Rahul Trivedi, Jelena Vuckovic, Jonathan J. Finley, and Kai Mueller, "Quantum dot single photon sources with ultra-low multi-photon probability," *Nature Publishing Journal of Quantum Information,* vol. 4, article 43 (2018)
87. Zhexin Zhao, Tyler Hughes, Si Tan, Huiyang Deng, Neil Sapra, R. Joel England, Jelena Vuckovic, James S. Harris, Robert L. Byer, And Shanhui Fan, "Design of a tapered slot waveguide dielectric laser accelerator for sub-relativistic electrons," *Optics Express, vol. 26,* No. 18*,* pp. 22801-22815 (2018)

88. Kevin Fischer, Shuo Sun, Daniil Lukin, Yousif Kelaita, Rahul Trivedi, and Jelena Vuckovic, "Pulsed coherent drive in the Jaynes-Cummings model," *Physical Review A*, vol. 98, 021802(R) (2018)

89. Sean Molesky, Zin Lin, Alexander Piggott, Weiliang Jin, Jelena Vuckovic, and Alejandro W. Rodriguez, "Inverse Design in Nanophotonics," *Nature Photonics,* vol. 12, pp. 659-670 (2018) [invited review article]

90. Shuo Sun, Jingyuan Linda Zhang, Kevin A. Fischer, Michael J. Burek, Constantin Dory, Konstantinos G. Lagoudakis, Yan-Kai Tzeng, Marina Radulaski, Yousif Kelaita, Amir Safavi-Naeini, Zhi-Xun Shen, Nicholas A. Melosh, Steven Chu, Marko Lončar, Jelena Vučković, "Cavity-enhanced Raman emission from a single-color center," *Physical Review Letters,* 121, 083601 (2018)

91. Hanzhe Liu, Cheng Guo, Giulio Vampa, Jingyuan Linda Zhang, Tomas Sarmiento, Meng Xiao, Philip H. Bucksbaum, Jelena Vučković, Shanhui Fan, and David A. Reis, "Enhanced High-Harmonic Generation from an all-dielectric metasurface," *Nature Physics,* vol. 14, pp. 1006–1010 (2018)

92. Kevin A. Fischer, Rahul Trivedi, and Jelena Vuckovic, Vinay Ramasesh and Irfan Siddiqi, "Scattering of Coherent Pulses from Quantum-Optical Systems," *Quantum,* vol. 2, 69 (2018)

93. Tyler W. Hughes, Si Tan, Zhexin Zhao, Neil Sapra, Kenneth J. Leedle, Huiyang Deng, Yu Miao, Dylan Black, Olav Solgaard, James S. Harris, Jelena Vuckovic, Robert L. Byer, and Shanhui Fan, "On-Chip Laser Power Delivery System for Dielectric Laser Accelerators," *Physical Review Applied,* vol 9, 054017 (2018)

94. Shashank Gupta, Donguk Nam, David Sukhdeo, Tomas Sarmiento, Jelena Vuckovic, Krishna Saraswat, "Room temperature lasing unraveled by a strong resonance between gain and parasitic absorption in uniaxially strained germanium," *Physical Review B,* vol. 97, 155127 (2018)

95. Jingyuan Linda Zhang, Shuo Sun, Michael Burek, Constantin Dory, Yan-Kai Tzeng, Kevin A. Fischer, Yousif Kelaita, Konstantinos G. Lagoudakis, Marina Radulaski, Zhi-Xun Shen, Nicholas A. Melosh, Steven Chu, Marko Lončar, Jelena Vuckovic, "Strongly Cavity-Enhanced Spontaneous Emission from Silicon-Vacancy Centers in Diamond," *Nano Letters,* vol. *18* (2), pp 1360–1365 (2018)

96. Roland Nagy, Matthias Widmann, Matthias Niethammer, Durga B.R. Dasari, Ilja Gerhardt, Öney Soykal, Marina Radulaski, Takeshi Ohshima, Jelena Vučković, Nguyen Tien Son, Ivan. G. Ivanov, Sophia Economou, Cristian Bonato, Sang-Yun Lee, & Jörg Wrachtrup "Quantum properties of dichroic silicon vacancies in silicon carbide," *Physical Review Applied,* vol. 9, 034022 (2018)

97. Logan Su, Rahul Trivedi, Neil V. Sapra, Alex Y. Piggott, Dries Vercruysse, and Jelena Vuckovic, "Fully-automated optimization of grating couplers," *Optics Express,* vol. 26 (4), 4023-4034 (2018)

98. Kevin A. Fischer, Lukas Hanschke, Jonathan Finley, Kai Mueller, and Jelena Vuckovic, "Pulsed Rabi oscillations in quantum two-level systems: Beyond the area theorem," in focus issue on "Quantum Photonics: Chips and Dots" *IOP Quantum Science and Technology (QST)* https://doi.org/10.1088/2058-9565/aa9269 (2017) [invited article]

99. Logan Su, Alex Y. Piggott, Neil V. Sapra, Jan Petykiewicz, and Jelena Vuckovic, "Inverse design and demonstration of a compact on-chip narrowband three-channel wavelength demultiplexer," *ACS Photonics,* vol. 5 (2), pp. 301-305 (2017)

100. Jingyuan Linda Zhang, Konstantinos G. Lagoudakis, Yan-Kai Tzeng, Constantin Dory, Marina Radulaski, Yousif Kelaita, Kevin A. Fischer, Shuo Sun, Zhi-Xun Shen, Nicholas A. Melosh, Steven Chu, Jelena Vučković, "Complete Coherent Control of Silicon-Vacancies in Diamond Nanopillars Containing Single Defect Centers," *Optica, vol.* 4(11), 1317-1321 (2017)

101. Marina Radulaski, Kevin A. Fischer, Konstantinos G. Lagoudakis, Jingyuan Linda Zhang, and Jelena Vuckovic, "Photon Blockade in Two-Emitter-Cavity Systems," *Physical Review A*, vol. 96, 011801(R) (2017)

102. Alexander Piggott, Jan Petykiewicz, Logan Su, and Jelena Vuckovic, "Fabrication-constrained nanophotonic inverse design," *Scientific Reports 7,* 1786 (2017)

103. Kevin A. Fischer, Yousif A. Kelaita, Neil V. Sapra, Constantin Dory, Konstantinos G. Lagoudakis, Kai Mueller, and Jelena Vuckovic, "An on-chip architecture for self-homodyned nonclassical light," *Physical Review Applied,* vol. 7, 044002 (April 2017)

104. G. Vampa, H. Fattahi, J. Vučković, and F. Krausz, "Attosecond nanophotonics," *Nature Photonics,* vol. 11, pp. 210-212 (April 2017)

105. Marina Radulaski, Matthias Widmann, Matthias Niethammer, Jingyuan Linda Zhang, Sang-Yun Lee, Torsten Rendler, Konstantinos G. Lagoudakis, Nguyen Tien Son, Erik Janzen, Takeshi Ohshima, Jörg Wrachtrup, Jelena Vuckovic, "Scalable quantum photonics with single color centers in silicon carbide," *Nano Letters 17* (3), pp 1782–1786 (2017)

    Featured in *Nanotech Web*, *Institute of Physics (IOP), Stanford News, Stanford Daily, Science Daily, Phys.org,….*

106. Yan-Kai Tzeng, Haiyu Lu, Jingyuan Linda Zhang, Hitoshi Ishiwata, Jeremy Dahl, Robert M. K. Carlson, Hao Yan, Peter R. Schreiner, Jelena Vuckovic, Zhi-Xun Shen, Nicholas Melosh, Steven Chu, "Vertical-Substrate MPCVD Epitaxial Diamond Growth," *Nano Letters,* Article ASAP, DOI: 10.1021/acs.nanolett.6b04543 (2017)

107. Kevin A. Fischer, Lukas Hanschke, Jakob Wierzbowski, Tobias Simmet, Constantin Dory, Jonathan J. Finley, Jelena Vuckovic, Kai Müller, "Signatures of two-photon pulses from a quantum two-level system," *Nature Physics,* vol. 13, pp. 649-654 (2017)

    Featured in Stanford News, Stanford Daily, Science Daily, Phys.org,….

108. Constantin Dory, Kevin A. Fischer, Kai Mueller, Konstantinos G. Lagoudakis,Tomas Sarmiento, Armand Rundquist, Jingyuan L. Zhang, Yousif Kelaita, Neil V. Sapra, and Jelena Vuckovic, "Tuning the Photon Statistics of a Strongly Coupled Nanophotonic System," *Physical Review A,* vol. **95**, 023804 (2017)

109. K. G. Lagoudakis, K. A. Fischer, T. Sarmiento, P. L. McMahon, M. Radulaski, J. L. Zhang, Y. Kelaita, C. Dory, K. Müller and J. Vučković, "Observation of Mollow Triplets with Tunable Interactions in Double Lambda Systems of Individual Hole Spins" *Physical Review Letters,* vol. 118, 013602 (2017)

110. Kevin Fischer, Kai Mueller, Konstantinos Lagoudakis, jelena Vuckovic, "Dynamical modeling of pulsed two-photon interference," *New Journal of Physics, vol.* 18, 113053 (2016)

Listed in *2016 highlights for New Journal of Physics*

111. Yousif A. Kelaita, Kevin A. Fischer, Thomas M. Babinec, Konstantinos G. Lagoudakis, Tomas Sarmiento, Armand Rundquist, Arka Majumdar, Jelena Vuckovic, "Hybrid metal-dielectric nanocavity for enhanced light-matter interactions," *Optical Materials Express,* Vol. 7 Issue 1, 231-239 (2017) [invited paper]

Featured in *Business Wire*, *OSA News*, *Science Daily, EurekAlert, Yahoo Finance, TMC Net, Digital Journal, Benzinga, Opli*

112. K. G. Lagoudakis, P. L. McMahon, C. Dory, K. A. Fischer, K. Müller, V. Borish, D. Dalacu, P. J. Poole, M. E. Reimer, V. Zwiller, Y. Yamamoto, & J. Vučković, "Ultrafast Coherent Manipulation of Trions in Site-Controlled Nanowire Quantum Dots," *Optica, vol.* 3, 1430-1435 (2016)

113. Kai Müller, Kevin A. Fischer, Constantin Dory, Tomas Sarmiento, Konstantinos G.Lagoudakis, Armand Rundquist, Yousif Kelaita, Jelena Vuckovic, "Self-homodyne enabled generation of indistinguishable photons," *Optica,* vol. 3, 931-936 (2016)

114. Konstantinos G. Lagoudakis, Peter L. McMahon, Shruti Puri, Dan Dalacu, Philip J. Poole, Michael E. Reimer, Val Zwiller, Yoshihisa Yamamoto, Jelena Vuckovic, "Initialization of a spin qubit in a site-controlled nanowire quantum dot," *New Journal of Physics, vol.* 18, 053024 (2016)

115. C. Dory, K. A. Fischer,K. Müller, K. G. Lagoudakis, T. Sarmiento, A. Rundquist, J. L. Zhang, Y. Kelaita and J. Vuckovic, "Complete Coherent Control of a Quantum Dot Strongly Coupled to a Nanocavity," *Scientific Reports,* vol. 6, 25172 (2016)

116. Armin Regler, Konrad Schraml, Anna Lyamkina, Matthias Spiegl, Kai Müller, J. Vuckovic, Jonathan J. Finley, and Michael Kaniber, "Emission redistribution from a quantum dot--bowtie nanoantenna," *Journal of Nanophotonics,* vol. 10 (3), 033509 (2016)

117. Jan Petykiewicz, Donguk Nam, Devanand S. Sukhdeo, Shashank Gupta, Sonia Buckley, Alexander Y. Piggott, Jelena Vuckovic, and Krishna C. Saraswat, "Direct Bandgap Light Emission from Strained Ge Nanowires Coupled with High-Q Nanophotonic Cavities," *Nano Letters,* vol. 16, pp. 2168−2173 (2016)

118. Kevin A. Fischer, Kai Müller, Armand Rundquist, Tomas Sarmiento, Alexander Y. Piggott, Yousif Kelaita, Constantin Dory, Konstantinos G. Lagoudakis, Jelena Vuckovic, "Self-homodyne measurement of a pulsed Mollow triplet in the solid state," *Nature Photonics,*vol. 10, pp. 163-166 (2016)

Featured in the *Stanford Report, Stanford Engineering News, Phys.org, Science Daily, Futurity, Science Alert, Vice Motherboard, ACM Tech News, IEEE Signal Processing Magazine, etc*

119. Jingyuan Linda Zhang, Hitoshi Ishiwata, Thomas M. Babinec, Marina Radulaski, Kai Müller, Konstantinos G. Lagoudakis, Constantin Dory, Jeremy Dahl, Robert Edgington, Veronique Soulièr, Gabriel Ferro, Andrey A. Fokin, Peter R. Schreiner, Zhi-Xun Shen,

Nicholas A. Melosh, Jelena Vučković, "Hybrid group IV nanophotonic structures incorporating diamond Silicon-Vacancy Color Centers," *Nano Letters, vol.* 16 (1), pp. 212-217 (2016)

Featured in *Stanford News, Phys.org, Science Daily, Stanford Daily, Phys.org,….*

120. David S. Sukhdeo, Jan Petykiewicz, Shashank Gupta, Daeik Kim, Sungdae Woo, Youngmin Kim, Jelena Vučković, Krishna C. Saraswat, and Donguk Nam,, "Ge Microdisk with Lithographically-Tunable Strain using CMOS-Compatible Process," *Optics Express,* ol. 23, No. 26, pp. 33249-33254 (2015)

121. Edward T. Fei, Xiaochi Chen, Kai Zang, Yijie Huo, Gary Shambat, Gerald Miller, Xi Liu, Raj Dutt, Theodore I. Kamins, Jelena Vuckovic, James S. Harris, "Investigation of Ge Quantum-Well Light Sources," *Optics Express,* vol. 23, No. 17, pp. 22424-22430 (2015)

122. G. Reithmaier, F. Flassig, S. Lichtmannecker, K. Müller, A. Andrejew, J. Vuckovic, R. Gross, M. Kaniber and J. J. Finley, "On-chip generation, routing and detection of resonance fluorescence," *Nano Letters,* DOI: 10.1021/acs.nanolett.5b01444 (2015)

123. Kai Mueller, Kevin A. Fischer, Armand Rundquist, Konstantinos G. Lagoudakis, Constantin Dory, Tomas Sarmiento, Victoria Borish, Yousif A. Kelaita, and Jelena Vuckovic, "Ultrafast polariton-phonon dynamics of strongly coupled quantum dot-nanocavity systems," *Physical Review X,* vol. 5, 031006 (2015)

Also highlighted by APS (at http://physics.aps.org/): "Good Vibrations," by Jessica Thomas

124. Kai Mueller, Armand Rundquist, Kevin Fischer, Tomas Sarmiento, Konstantinos G Lagoudakis, Yousif Kelaita, Carlos Sanchez Munoz, Elena del Valle, Fabrice P. Laussy, and Jelena Vuckovic, "Coherent generation of nonclassical light on chip via detuned photon blockade" *Physical Review Letters,* vol. 114, 233601 (2015)

125. Alexander Y. Piggott, Jesse Lu, Konstantinos G. Lagoudakis, Jan Petykiewicz, Thomas M. Babinec, and Jelena Vuckovic, "Inverse design and demonstration of a robust, ultra-compact, and broadband on-chip wavelength demultiplexer," *Nature Photonics,* vol. 9, pp. 374-377 (2015)

Featured: on the cover of the June 2015 issue of *Nature Photonics* in the *News and Views* article by K. Aydin, "Integrated optics: nanostructured silicon success," *Nature Photonics,* vol. 9, pp. 353-355 (2015), and in numerous media outlets, including *Stanford University News, San Jose Mercury News, Scientific American, Phys.org, Motherboard/Vice, Laser Focus World, Optics and Photonics News, Y Combinator News, ACM News, EurekAlert, Science Alert, Nanotechnology Now, E&T Magazine, R&D magazine, Gizmodo*, *Futurity*, etc

Highly cited paper in physics according to Thompson-Reuters, Web of Science (Feb. 2018)

See also: Alexander Y. Piggott, Jesse Lu, Konstantinos G. Lagoudakis, Jan Petykiewicz, Thomas M. Babinec, and Jelena Vuckovic, "Reply to 'On nanostructured silicon success'", *Nature Photonics* vol. 10,pp. 143–144 (2016)

126. Sanfeng Wu, Sonia Buckley, John Schaibley, Liefeng Feng, Jiaqiang Yan, David G. Mandrus, Fariba Hatami, Wang Yao, Jelena Vučković, Arka Majumdar, Xiaodong Xu,

"Ultra-low threshold monolayer semiconductor nanocavity lasers," *Nature,* vol. 520, pp. 69-72 (2015)

127. Marina Radulaski, Thomas M. Babinec, Kai Müller, Konstantinos G. Lagoudakis, Jingyuan Linda Zhang, Sonia Buckley, Yousif A. Kelaita, Kassem AlAssaad, Gabriel Ferro and Jelena Vučković, "Photoluminescence from cubic (3C) silicon carbide microdisks coupled to high quality whispering gallery modes," *ACS Photonics,*vol. 2, 14-19 (2014)

128. Alexander Y. Piggott, Jesse Lu, Thomas M. Babinec, Konstantinos G. Lagoudakis, Jan Petykiewicz, and Jelena Vuckovic, "Inverse design and implementation of a wavelength demultiplexing grating coupler," *Scientific Reports,* vol. 4, article 7210 (2014)

Featured in Stanford University News, DOE Office of Science, Phys.org, Fast Company, Gizmodo, IFLScience, MSN, Daily Mail, Silicon Valley Business Journal, etc

Selected by Phys.org as one of the top ten science and technology developments in 2014

129. Sonia Buckley, Marina Radulaski, Jingyuan Linda Zhang, Jan Petykiewicz, Klaus Biermann, Jelena Vuckovic, "Multimode nanobeam cavities for nonlinear optics: high quality resonances separated by an octave," *Optics Express,* Vol. 22, Iss. 22, pp. 26498–26509 (2014)

130. Sonia Buckley, Marina Radulaski, Linda Zhang, Jan Petykiewicz, Klaus Biermann, Jelena Vuckovic, "Nonlinear frequency conversion using high quality modes in GaAs nanobeam cavities," *Optics Letters,* vol. 39, No. 19, pp. 5673–5676 (2014)

131. Konstantinos G. Lagoudakis, Kevin A. Fischer, Tomas Sarmiento, Kai Mueller and & Jelena Vuckovic, "Hole Spin Pumping and Repumping in a p-type δ-doped InAs Quantum Dot," to appear in *Physical Review B,* vol. 90, 121402(R), (2014)

132. G. Reithmaier, F. Flassig, P. Hasch, S. Lichtmannecker, K. Mueller, M. Bichler, J. Vuckovic, R. Gross, M. Kaniber, and J. J. Finley, "A carrier relaxation bottleneck probed in single InGaAs quantum dots using integrated superconducting single photon detectors," *Applied Physics Letters,* vol. 105, 081107 (2014)

133. A. Rundquist, M. Bajcsy, A. Majumdar, T. Sarmiento, K. Fischer, K. Lagoudakis, S. Buckley, and J. Vuckovic, "Non-classical three photon correlations with a quantum dot strongly coupled to a photonic-crystal nanocavity," *Physical Review A,* vol. 90, 023846 (2014)

134. Alexander Y. Piggott, Konstantinos G. Lagoudakis, Tomas Sarmiento, Michal Bajcsy, Gary Shambat, and Jelena Vuckovic, "Photo-oxidative tuning of individual and coupled GaAs Photonic Crystal Cavities," *Optics Express,* Vol. 22, 12, pp. 15017-15023 (2014)

135. Sonia Buckley, Marina Radulaski, Jan Petykiewicz, Konstantinos G. Lagoudakis, Ju-Hyung Kang, Mark Brongersma, Klaus Biermann, Jelena Vuckovic, "Below bandgap second harmonic generation in GaAs photonic crystal cavites in (111)B and (001) crystal orientations," *ACS Photonics,* vol. 1, No. 6, pp 516–523 (2014)

136. Sanfeng Wu, Sonia Buckley, Aaron M. Jones, Jason S. Ross, Nirmal J. Ghimire, Jiaqiang Yan, David G. Mandrus, Wang Yao, Fariba Hatami, Jelena Vuckovic, Arka Majumdar, Xiaodong Xu, "Control of Two-Dimensional Excitonic Light Emission via Photonic Crystal," *2D Materials,* vol. 1 . 011001 (2014)

137. Waqas Mustafeez, Arka Majumdar, Jelena Vuckovic and Alberto Salleo, "A direct measurement of the electronic structure of Si nanocrystals and its effect on optoelectronic properties," *Journal of Applied Physics*, vol. 115, 103515 (2014)

138. Marina Radulaski, Thomas M. Babinec, Sonia Buckley, Armand Rundquist, J Provine, Kassem Alassaad, Gabriel Ferro, and Jelena Vučković, "Photonic Crystal Cavities in Cubic Polytype Silicon Carbide Films," *Optics Express*, Vol. 21, No. 26, pp. 32623-32629 (2013)

139. Konstantinos G. Lagoudakis, Kevin Fischer, Tomas Sarmiento, Arka Majumdar, Armand Rundquist, Jesse Lu, Michal Bajcsy and Jelena Vučković, "Deterministically Charged Quantum Dots in Photonic Crystal Nanoresonators for Efficient Spin-Photon Interfaces," *New Journal of Physics,* vol. 15, 113056 (2013)

140. Sonia Buckley, Marina Radulaski, Klaus Biermann, and Jelena Vuckovic, "Second Harmonic Generation in Photonic Crystal Cavities in [111]-Oriented GaAs," *Applied Physics Letters,* vol. 103, 211117 (2013)

141. Arka Majumdar, Jonghwan Kim, Jelena Vuckovic and Feng Wang, "Graphene for Tunable Nanophotonic Resonators," *IEEE Journal of Selected Topics in Quantum Electronics,* VOL. 20, No. 1, article 4600204, (Jan-Feb 2014) [invited article]

One of the top downloaded articles from IEEE JSTQE, September 2013

142. Arka Majumdar, Per Kaer, Michal Bajcsy, Erik D. Kim, Armand Rundquist, Konstantinos Lagoudakis, and Jelena Vuckovic, "Proposed Coupling of an Electron Spin in a Semiconductor Quantum Dot to a Nanosize Optical Cavity," *Physical Review Letters, vol.* 111, 027402 (2013)

143. Donguk Nam, David Sukhdeo, Juhyung Kang, Jan Petykiewicz, Jae Hyung Lee, Woo Shik Jung, Jelena Vuckovic, Mark Brongersma, and Krishna Saraswat, "Strain-Induced Homo-Compositional Heterostructure Nanowires Confining Carriers at Room Temperature with Nanoscale-Tunable Band Profiles," *Nano-Letters,* vol. *13* (7), pp 3118–3123 (June 2013)

144. Jesse Lu and Jelena Vuckovic, "Nanophotonic Computational Design," *Optics Express,* Vol. 21, No. 11, pp. 13351-13367 (2013)

145. Gary Shambat, Sri Rajashekhar Kothapalli, J Provine, Tomas Sarmiento, James Harris, Sanjiv Sam Gambhir, and Jelena Vuckovic, "Single-cell photonic nanocavity probes," *Nano-Letters,* vol. 13, No. 11, pp. 4999-5005 (2013)

Selected for the cover of Nano Letters (November 2013), and featured in the Stanford Report (Feb. 2013), Stanford Engineering News, Popular Science, Laser Focus World, ScienceDaily, Photonics.com, Phys.org, Compound Semiconductor News, IEEE Spectrum, Biofutur, BioOptics World…

146. M. Bajcsy, A. Majumdar, A. Rundquist, and J. Vuckovic, "Photon blockade with a four-level quantum emitter coupled to a photonic-crystal Nanocavity," *New Journal of Physics,* vol. 15 025014 (2013)

147. Arka Majumdar, Jonghwan Kim, Jelena Vuckovic , Feng Wang, "Electrical Control of Silicon Photonic Crystal Cavity by Graphene," *Nano Letters,* vol. *13* (2), pp 515–518 (2013)

148. Arka Majumdar, Armand Rundquist, Michal Bajcsy, Vaishno Daisika, Seth Bank, and Jelena Vuckovic, “Design and analysis of photonic crystal coupled cavity arrays for quantum simulation,” *Physical Review B,* vol. 86, 195312 (2012)

149. Sonia Buckley, Kelley Rivoire, and Jelena Vuckovic, "“Engineered quantum-dot single photon sources,” *Reports on Progress in Physics,* vol. 75, 126503 (2012) [invited article]

150. Sonia Buckley, Kelley Rivoire, Fariba Hatami, and Jelena Vuckovic, “Quasiresonant Excitation of GaP/InGaP Quantum Dots Using Intra-Cavity Second Harmonic Generation,” *Applied Physics Letters,* vol. 101, 161116 (2012)

151. Arka Majumdar, Michal Bajcsy, Dirk Englund, and Jelena Vuckovic, “All Optical Switching with a Single Quantum Dot Strongly Coupled to a Photonic Crystal Cavity,” *IEEE Journal of Selected Topics in Quantum Electronics, Focus Issue on Nanoscale and Quantum Photonics,* Vol 18, pp. 1812-1817 (2012)

152. Gary Shambat, Bryan Ellis, Jan Petykiewicz, Marie A. Mayer, Arka Majumdar, Tomas Sarmiento, James Harris, Eugene E. Haller, and Jelena Vuckovic, “Electrically driven photonic crystal nanocavity devices,” *IEEE Journal of Selected Topics in Quantum Electronics, Focus Issue on Nanoscale and Quantum Photonics,* Vol 16, pp. 1700-1710 (2012)

153. Arka Majumdar, Armand Rundquist, Michal Bajcsy, and Jelena Vuckovic, “Cavity Quantum Electrodynamics of a Single Quantum Dot Coupled to a Photonic Molecule,” *Physical Review B, vol.* 86, 045315 (2012)

154. Jan Petykiewicz, Gary Shambat, Bryan Ellis, Jelena Vuckovic, “Electrical properties of GaAs photonic crystal cavity lateral PIN diodes,” *Applied Physics Letters,* vol. 101, 011104 (2012)

155. Gary Shambat, Sri Rajasekhar Kothapalli, Aman Khurana, J Provine, Tomas Sarimento, Kai Cheng, Zhen Cheng, James Harris, Heike Daldrup-Link, Sanjiv Sam Gambhir, and Jelena Vuckovic, “A photonic crystal cavity-optical fiber tip nanoparticle sensor for biomedical applications,” *Applied Physics Letters,* vol. 100, 213702 (2012)

156. Arka Majumdar, Michal Bajcsy, Armand Rundquist, Erik Kim, and Jelena Vuckovic, "Phonon-mediated coupling between quantum dots through an off-resonant microcavity," *Physical Review B,* vol. 85, 195301 (2012)

157. Arka Majumdar, Michal Bajcsy, Armand Rundquist, and Jelena Vuckovic, " Loss-enabled sub-Poissonian light generation in a bimodal nanocavity," *Physical Review Letters,* vol. 108, 183601 (2012)

158. Arka Majumdar*, Michal Bajcsy*, and Jelena Vuckovic, "Probing the ladder of dressed states and nonclassical light generation in quantum dot-cavity QED," *Physical Review A* 85, 041801(R) (2012) *[* equal contributors]*

159. Jesse Lu and Jelena Vuckovic, "High-Efficiency, Small-Footprint Couplers Between Arbitrary Nanophotonic Waveguide Modes," *Optics Express,* Vol. 20, No. 7, pp. 7221-7236 (2012)

160. Arka Majumdar, Dirk Englund, Michal Bajcsy, and Jelena Vuckovic, "Nonlinear Temporal Dynamics of Strongly Coupled Quantum dot-Cavity System," *Physical Review A,* 85, 033802 (2012)

161. Dirk Englund, Arka Majumdar, Michal Bajcsy, Andrei Faraon, Pierre Petroff, and Jelena Vuckovic, " Ultrafast photon-photon interaction in a strongly coupled quantum dot-cavity system," *Physical Review Letters,* vol. 108, 093604 (2012)

162. Kelley Rivoire, Sonia Buckley, Yuncheng Song, Paul J. Simmonds, Minjoo Larry Lee, Jelena Vuckovic, "Photoluminescence from $In_{0.5}Ga_{0.5}As$/GaP quantum dots coupled to photonic crystal cavities," *Physical Review B,* vol. 85, 045319 (2012)

163. Alexander Papageorge, Arka Majumdar, Erik D. Kim, and Jelena Vuckovic, "Bichromatic Driving of a Solid State cavity QED System," *New Journal of Physics,* vol. 14, 013028 (2012)

164. Armand Rundquist, Arka Majumdar, and Jelena Vuckovic, "Off-resonant coupling between a single quantum dot and a nanobeam photonic crystal cavity," *Applied Physics Letters,* vol. 99, 251907 (2011)

165. Gary Shambat, Bryan Ellis, Arka Majumdar, Jan Petykiewicz, Marie Mayer, Tomas Sarmiento, James Harris, Eugene E. Haller, and Jelena Vuckovic, "Ultrafast direct modulation of a single mode photonic crystal nanocavity light-emitting diode, *Nature Communications,* vol. 2, article 539 (2011)

Featured in Stanford Report, San Francisco Chronicle, Stanford Daily, Wired, Forbes, Physorg, Science Codex, Stanford School of Engineeering News, Laser Focus World, Science Daily, BBC Mundo, Fox News, etc.

One of top downloaded and top e-mailed articles from Nature Communications

166. Gary Shambat, J Provine, Kelley Rivoire, Tomas Sarmiento, James Harris, and Jelena Vuckovic, "Optical fiber tips functionalized with semiconductor photonic crystal cavities," *Applied Physics Letters,* vol. 99, 191102 (2011)

One of the top read articles in Applied Physics Letters in Nov. 2011

167. Arka Majumdar, Erik Kim, and Jelena Vuckovic, " The effect of photo-generated carriers on the spectral diffusion of a quantum dot coupled to a photonic crystal cavity," *Physical Review B,* vol. 84, 195304 (2011)

168. Kelley Rivoire, Sonia Buckley, and Jelena Vuckovic, "Multiply resonant photonic crystal cavities for nonlinear frequency conversion," *Optics Express Focus Issue:* "Collective phenomena in photonic, plasmonic and hybrid structures," *vol.* 19, pp. 22198-22207 (2011) [invited article]

169. Seongjae Cho, Robert Chen, Sukmo Koo, Gary Shambat, Namkyoo Park, Jelena Vučković, Theodore I. Kamins, Byung-Gook Park, and James S. Harris, Jr., "Fabrication and Analysis of Epitaxially Grown $Ge_{1-x}Sn_x$ Microdisk Resonator with 20-nm Free Spectral Range," *IEEE Photonics Technology Letters,* Vol. 23, No. 20, pp. 1535-1537 (2011)

170. Arka Majumdar, Alexander Papageorge, Erik D. Kim, Michal Bajcsy, Hyochul Kim, Pierre Petroff & Jelena Vuckovic, "Probing of Single Quantum Dot Dressed States Via an Off-Resonant Cavity," *Physical Review B*, vol. 84, 085310 (2011)

171. Arka Majumdar, Yiyang Gong, Erik D. Kim, Michal Bajcsy, and Jelena Vuckovic, " Phonon-mediated off-resonant quantum dot-cavity coupling under resonant excitation of the quantum dot," *Physical Review B,* vol. 84, 085309 (2011)

172. Gary Shambat, Bryan Ellis, Jan Petykiewicz, Marie A. Mayer, Tomas Sarmiento, James Harris, Eugene E. Haller, and Jelena Vuckovic, "Nanobeam Photonic Crystal Cavity Light-Emitting Diodes," *Applied Physics Letters,* vol. 99, 071105 (2011)

One of the top downloaded articles from *Applied Physics Letters* in August 2011

173. Kelley Rivoire, Sonia Buckley, and Jelena Vuckovic, "Multiply resonant photonic crystal nanocavities," *Applied Physics Letters,* vol. 99, 013114 (2011)

174. Szu-Lin Cheng, Gary Shambat, Jesse Lu, Hyun-Yong Yu, Krishna Saraswat, Ted Kamins, Yoshio Nishi, and Jelena Vuckovic, "Cavity-enhanced direct band electroluminescence near 1550nm from germanium microdisk resonator diode on silicon," *Applied Physics Letters,* Vol. 98, 211101 (2011)

175. Kelley Rivoire, Sonia Buckley, Fariba Hatami, and Jelena Vuckovic, "Second harmonic generation in GaP photonic crystal waveguides," *Applied Physics Letters,* vol. 98, 263113 (2011) (2011)

176. Andrei Faraon, Arka Majumdar, Dirk Englund, Erik Kim, Michal Bajcsy, and Jelena Vuckovic, "Integrated quantum optical networks based on quantum dots and photonic crystals," *New Journal of Physics, Special issue on Integrated Quantum Photonics,* Vol. 13, pp. 055025 (2011)

177. Jesse Lu, Stephen Boyd, and Jelena Vuckovic, "Inverse Design of 3D Nanophotonic Resonators," *Optics Express,* Vol. 19, Issue 11, pp. 10563-10570 (2011)

Top downloaded article in *Optics Express* and image of the week at Optics Info-Base

178. Bryan Ellis, Marie Mayer, Gary Shambat, Tomas Sarmiento, James Harris, Eugene Haller, and Jelena Vuckovic, "Ultra-low threshold electrically pumped quantum dot photonic crystal nanocavity laser," *Nature Photonics,* vol. 5, pp. 297-300 (2011)

Featured in Stanford Report, Stanford Daily, Laser Focus World, Physorg.com, domain-b.com, and numerous other media outlets. Top downloaded article from *Nature Photonics* (May 2011). Highlighted in Encyclopedia Brittannica Book of the Year (2011)

179. Gary Shambat, Bryan Ellis, Marie Mayer, Arka Majumdar, Eugene Haller, and Jelena Vuckovic, "Ultra-low power fiber-coupled gallium arsenide photonic crystal cavity electro-optic modulator," *Optics Express,* Vol. 19, Issue 8, pp. 7530-7536 (2011)

180. Kelley Rivoire, Sonia Buckley, Arka Majumdar, Hyochul Kim, Pierre Petroff, and Jelena Vuckovic, "Fast quantum dot single photon source triggered at telecommunications wavelength," *Applied Physics Letters,* Vol. 98, article 083105 (2011)

181. Yiyang Gong, Armand Rundquist, Arka Majumdar, and Jelena Vuckovic, "Low-power Resonant Optical Excitation of an Optomechanical Cavity," *Optics Express,* Vol. 19, No. 2, pp. 1429–1440 (2011)

182. Yijie Huo, Hai Lin, Robert Chen, Maria Makarova, Yiwen Rong, Mingyang Li, Theodore I. Kamins, Jelena Vuckovic, and James S. Harris, "Strong enhancement of direct-transition

photoluminescence with highly tensile-strained Ge grown by molecular beam epitaxy," *Applied Physics Letters,* vol. 98, 011111 (2011)

183. Gary Shambat, Szu-Lin Cheng, Jesse Lu, Yoshio Nishi, and Jelena Vuckovic, "Direct band Ge photoluminescence near 1.6μm coupled to Ge-on-Si microdisk resonators," *Applied Physics Letters,* vol. 97, 241102 (2010)

184. Dirk Englund, Brendan Shields, Kelley Rivoire, Jelena Vuckovic, Fariba Hatami, Hongkun Park, Mikhail D. Lukin, "Deterministic coupling of a single nitrogen vacancy center to a photonic crystal nanocavity," *Nano-letters,* vol. 10, No. 10, pp 3922–3926 (2010)

185. Erik D. Kim, Arka Majumdar, Hyochul Kim, Pierre Petroff, and Jelena Vuckovic, "Differential Reflection Spectroscopy of a Single Quantum Dot Strongly Coupled to a Photonic Crystal Cavity," *Appled Physics Letters,* vol. 97, 053111 (2010)

186. Arka Majumdar, Ziliang Lin, Andrei Faraon, and Jelena Vuckovic, "Proposal for high-speed and high-fidelity electron spin initialization in a negatively charged quantum dot coupled to a microcavity in a weak external magnetic field," *Phys. Rev. A,* vol. 81, 022301 (2010)

187. Kelley Rivoire, Ziliang Lin, Fariba Hatami, and Jelena Vuckovic, "Sum-frequency generation in doubly resonant GaP photonic crystal nanocavities," *Applied Physics Letters,* vol. 97, 043103 (2010)

188. Hideo Iwase, Dirk Englund, and Jelena Vučković, "Analysis of Purcell effect in photonic and plasmonic crystals with losses," *Optics Express,* Vol. 18, Issue 16, pp. 16546-16560 (2010)

189. Arka Majumdar, Andrei Faraon, Erik Kim, Dirk Englund, Hyochul Kim, Pierre Petroff, and Jelena Vuckovic, "Linewidth broadening of a quantum dot coupled to an off-resonant cavity" *Physical Review B,* vol. 82, 045306 (2010)

190. Yiyang Gong, Maria Makarova, Selcuk Yerci, Rui Li, Marty Stevens, Burm Baek, Sae Woo Nam, Luca Dal Negro, and Jelena Vuckovic, "Observation of Transparency of Er-doped Silicon nitride in photonic crystal nanobeam cavities," *Optics Express,* Vol. 18, Issue 13, pp. 13863-13873 (2010)

191. Yiyang Gong, Satoshi Ishikawa, Szu-Lin Cheng, Yoshio Nishi, and Jelena Vuckovic, "Photoluminescence from silicon dioxide photonic crystal cavities with embedded silicon nanocrystals," *Physical Review B,* vol. 81, 235317 (2010)

    Article selected as *Phys. Rev. B* Editor's suggestion, and spotlighted by the American Physical Society

192. Gary Shambat, Kelley Rivoire, Jesse Lu, Fariba Hatami, W. Ted Masselink, and Jelena Vuckovic, "Tunable-wavelength second harmonic generation from GaP photonic crystal cavities coupled to fiber tapers," *Optics Express,* Vol. 18, Issue 12, pp. 12176-12184 (2010)

193. Bryan Ellis, Tomas Sarmiento, Marie Mayer, Bingyang Zhang, James Harris, Eugene Haller, and Jelena Vuckovic, "Electrically pumped photonic crystal nanocavities using a laterally doped p-i-n junction," *Applied Physics Letters,* vol. **96**, 181103 (2010)

    One of the top downloaded articles from *Applied Physics Letters* in May 2010

194. Yiyang Gong, Bryan Ellis, Tomas Sarmiento, Gary Shambat, James S. Harris, and Jelena Vuckovic, " Nanobeam photonic crystal cavity quantum dot laser," *Optics Express,* Vol. 18, pp. 8781-8789 (2010)

195. Andrei Faraon, Arka Majumdar, and Jelena Vuckovic, "Generation of non-classical states of light via photon blockade in optical nanocavities," *Physical Review A,* Vol. 81, 033838 (2010).

196. Gary Shambat, Yiyang Gong, Jesse Lu, Selçuk Yerci, Rui Li, Luca Dal Negro, and Jelena Vučković, "Coupled fiber taper extraction of 1.53 μm photoluminescence from erbium doped silicon nitride photonic crystal cavities," *Optics Express,* Vol. 18, No. 6, pp. 5964-5973 (2010)

197. Dirk Englund, Arka Majumdar, Andrei Faraon, Mitsuru Toishi, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Resonant excitation of a quantum dot strongly coupled to a photonic crystal nanocavity," *Physical Review Letters,* vol.104, 073904 (2010)

198. Arka Majumdar, Nicolas Manquest, Andrei Faraon, and Jelena Vuckovic, "Theory of electro-optic Modulation via a Quantum Dot Coupled to a Nano-resonator," *Optics Express,* Vol. 18, No. 5, pp. 3974–3984 (2010)

199. Jesse Lu and Jelena Vuckovic, "Inverse design of nanophotonic structures using complementary convex optimization," *Optics Express,* Vol. 18, Issue 4, pp. 3793-3804 (2010)

200. Maria Makarova, Yiyang Gong, Szu-Lin Cheng, Yoshio Nishi, Selcuk Yerci, Rui Li, Luca Dal Negro, and Jelena Vuckovic, "Photonic Crystal and Plasmonic Silicon Based Light Sources," *IEEE Journal on Selected Topics in Quantum Electronics, Special Issue on Silicon Photonics,* Vol. 16, pp. 132-140 (2010)

201. Yiyang Gong, Maria Makarova, Selcuk Yerci, Rui Li, Martin J. Stevens, Burm Baek, Sae Woo Nam, Robert H. Hadfield, Sander N. Dorenbos, Val Zwiller, Jelena Vuckovic, and Luca Dal Negro, "Linewidth narrowing and Purcell enhancement in photonic crystal cavities on an Er-doped silicon nitride platform," *Optics Express,* vol. 18, pp. 2601-2612 (2010)

202. Yiyang Gong and Jelena Vuckovic, "Photonic Crystal Cavities in Silicon Dioxide," *Applied Physics Letters,* vol. 96, 031107 (2010)

    One of the top 20 downloaded papers from *Applied Physics Letters* in Jan. 2010

203. Andrei Faraon, Arka Majumdar, Hyochul Kim, Pierre Petroff and & Jelena Vuckovic, "Fast electrical control of a quantum dot strongly coupled to a photonic crystal cavity," *Physical Review Letters,* vol. 104, 047402 (2010)

    Highlighted in *Laser Focus World*, April 2010

204. Ziliang Lin and Jelena Vuckovic, "Two-Photon Absorption and Emission in Quantum Dots coupled to Photonic Crystal Nanocavities," *Phys. Rev. B,* vol. 81, 035301 (2010)

205. Jeremy O'Brien, Akira Furusawa, and Jelena Vuckovic, "Photonic quantum technologies," *Nature Photonics,* vol. 3, pp. 687-695 (2009) [invited article]

206. Kelley Rivoire, Ziliang Lin, Fariba Hatami, W. Ted Masselink, and Jelena Vuckovic, "Second harmonic generation in gallium phosphide photonic crystal nanocavities with ultralow continuous pump power," *Optics Express,* Vol. 17, pp 22609-22615 (2009)

207. Yiyang Gong, Selcuk Yerci, Rui Li, Luca Dal Negro, Jelena Vuckovic, "Enhanced Light Emission from Erbium Doped Silicon Nitride in Plasmonic Metal-Insulator-Metal Structures," *Optics Express*, Vol 17, pp 18651-18658 (2009)

208. Dirk Englund, Andrei Faraon, Arka Majumdar, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic "An optical modulator based on a strongly coupled quantum dot-cavity system in a p-i-n junction," *Optics Express,* Vol. 17, pp 18651-18658 (2009)

209. Kelley Rivoire, Anika Kinkhabwala, W.E. Moerner, Jelena Vuckovic, Fariba Hatami, Yuri Avlasevich, Klaus Müllen , "Lithographic Positioning of Fluorescent Molecules on High-Q Photonic Crystal Cavities," *Applied Physics Letters,* Vol. 95, 123113 (2009)

210. Dirk Englund, Bryan Ellis, Tomas Sarmiento, Elizabeth Edwards, David A. B. Miller, James Harris, and Jelena Vuckovic, "Electrically controlled optical modulation in a photonic crystal circuit," *Optics Express,* Vol. 17, pp 15409-15419 (2009)

211. Mitsuru Toishi, Dirk Englund, Andrei Faraon, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "High-brightness single photon source from a quantum dot in a directional-emission nanocavity," *Optics Express,* Vol. 17, Issue 17, pp. 14618-14626 (2009)

212. Andrei Faraon , Jelena Vuckovic, "Local temperature control of photonic crystal devices via micron-scale electrical heaters," *Applied Physics Letters,* vol. 95, 043102 (2009)

213. Szu-Lin Cheng, Jesse Lu, Gary Shambat, Hyun-Yong Yu, Krishna Saraswat, Jelena Vuckovic and Yoshio Nishi**, "**Room temperature 1.6 μm electroluminescence from Ge light emitting diode on Si substrate**,"** *Optics Express* Vol. 17, No. 12, pp.10019-10024 (2009)

    Also featured in Stanford School of Engineering News, Slashdot.org, Laser Focus World.

214. Dirk Englund, Hatice Altug, and Jelena Vuckovic, "Time-resolved lasing action from single and coupled photonic crystal nanocavity array lasers emitting in the telecom band," *Journal of Applied Physics*, vol. 105, 093110 (2009)

215. Dirk Englund, Andrei Faraon, Ilya Fushman & Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," special issue of "Photonics and Nanostructures: Fundamentals and Applications (PNFA)," vol. 7, pp. 56–62 (2009)

216. Yiyang Gong, Jesse Lu, Szu-Lin Cheng, Yoshio Nishi, and Jelena Vuckovic, "Plasmonic enhancement of emission from silicon nanocrystals," *Applied Physics Letters,* Vol. **94**, 013106 (2009)

217. Kelley Rivoire, Andrei Faraon, and Jelena Vuckovic, "Gallium-Phosphide Photonic Crystal Nanocavities in the Visible," *Applied Physics Letters,* Vol. 93, article 063103 (2008)

218. Andrei Faraon, Ilya Fushman, Dirk Englund, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Dipole induced transparency in waveguide coupled photonic crystal cavities," *Optics Express,* Vol. 16, pp. 12154-12162 (2008)

219. Andrei Faraon, Ilya Fushman, Dirk Englund, Nick Stoltz, Pierre Petroff, and Jelena

Vuckovic, "Coherent generation of nonclassical light on a chip via photon-induced tunneling and blockade," *Nature Physics,* Vol. 4, pp. 859 - 863 (2008)

220. Ilya Fushman, Dirk Englund, Andrei Faraon, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Controlled phase shift with a single quantum dot," *Science,* vol. 320, number 5877, pp. 769-772 (2008)

    Highlighted in Stanford Report, Compound Semi News, Technology Research News, photonics.com, Semiconductor International, physorg.com

221. Maria Makarova, Vanessa Sih, Joe Warga, Rui Li, Luca Dal Negro, and Jelena Vuckovic, "Enhanced light emission in photonic crystal nanocavities with Erbium-doped silicon nanocrystals," *Applied Physics Letters,* vol. 92, article 161107 (2008)

222. Ilya Fushman, Dirk Englund, Andrei Faraon, Jelena Vuckovic, "Probing the Interaction Between a Single Quantum Dot And a Photonic Crystal Cavity," *Physica Status Solidi* (c), Vol. 5, No. 9, 2808–2815 (2008)

223. Dirk Englund, Hatice Altug, Bryan Ellis, and Jelena Vuckovic, "Ultrafast Photonic Crystal Lasers," Invited Article for *Lasers and Photonics Review,* Volume 2, No. 4, pp 264-274 (2008)

224. Andrei Faraon, Dirk Englund, Barry Luther-Davies, Douglas Boulla, Benjamin J. Eggleton, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Local tuning of photonic crystal cavities using chalcogenide glasses," *Applied Physics Letters,* vol. 92, 043123, January 2008

225. Hideo Iwase, Dirk Englund, and Jelena Vuckovic, "Spontaneous emission control in high extraction efficiency plasmonic crystals," *Optics Express,* vol. 16, Issue 1, pp. 426-434, Jan. 2008

226. Dirk Englund, Andrei Faraon, Ilya Fushman, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Controlling cavity reflectivity with a single quantum dot," *Nature*, vol. 450, No. 7171, pp. 857-861, December 2007

    Highlighted in Photonics Spectra (Feb. 2008), Stanford Report (Jan. 2008), optics.org, Heise Computer Magazine, ONR Navigator, OLE Magazine etc.

227. Dirk Englund, Hatice Altug, and Jelena Vuckovic, "Low-Threshold Surface-Passivated Photonic Crystal Nanocavity Laser," *Applied Physics Letters*, Vol. 91, 071124, August 2007

228. Dirk Englund, Hatice Altug, Ilya Fushman, and Jelena Vuckovic, "Efficient Terahertz Room-Temperature Photonic Crystal Nanocavity Laser," *Applied Physics Letters*, Vol. 91, 071126, August 2007

    Highlighted in Laser Focus World, October 2007 issue

229. Joel Goh, Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Genetic optimization of photonic bandgap structures," *Optics Express*, Vol. 15, 8218-8230, June 2007

230. Andrei Faraon, Dirk Englund, Ilya Fushman, Jelena Vuckovic, Nick Stoltz, Pierre Petroff, "Local Quantum Dot tuning on photonic crystal chips," *Applied Physics Letters*, Vol. 90, 213110, May 2007

    Highlighted by Science Magazine, Vol. 316, p1395, June 8, 2007

231. Dirk Englund, Andrei Faraon, Bingyang Zhang, Yoshihisa Yamamoto, and Jelena Vuckovic, "Generation and transfer of single photons on a photonic crystal chip," *Optics Express,* Vol. 15, pp. 5550-5558, April 2007

232. Ilya Fushman and Jelena Vuckovic, "Analysis of a Quantum Nondemolition Measurement Scheme Based on Kerr Nonlinearity in Photonic Crystal Waveguides," *Optics Express,* Vol. 15, pp. 5559-5571, April 2007

233. Bryan Ellis, Ilya Fushman, Dirk Englund, Bingyang Zhang, Yoshihisa Yamamoto, and Jelena Vuckovic, Dynamics of Quantum Dot Photonic Crystal Lasers, *Applied Physics Letters*, Vol. 90, 151102, April 2007

This article was among the top 20 downloaded articles from Applied Physics Letters website in April 2007

234. Ilya Fushman, Edo Waks, Dirk Englund, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Ultra Fast Nonlinear Optical Tuning of Photonic Crystal Cavities," *Applied Physics Letters,* Vol. 90, 091118, March 2007

Also highlighted in Nature Photonics, vol. 1, pp. 203 (April 2007)

235. Andrei Faraon, Edo Waks, Dirk Englund, Ilya Fushman, and Jelena Vuckovic, "Efficient photonic crystal cavity waveguide couplers*," Applied Physics Letters,* Vol. 90, 073102, February 2007

This article was among the top 20 downloaded articles from Applied Physics Letters website in February 2007

236. Yiyang Gong and Jelena Vuckovic, "Design of plasmon cavities for solid-state cavity QED applications" *Applied Physics Letters,* Vol. 90, 033113, January 2007

237. Nathan Jukam, Ilya Fushman, Cristo Yee, Jelena Vuckovic, and Mark S. Sherwin, "Patterned femtosecond laser excitation of terahertz leaky modes in GaAs photonic crystals," *Applied Physics Letters*, Vol. 89, 241112, December 2006

238. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, and Yoshio Nishi, "Silicon based photonic crystal nanocavity light emitters," *Applied Physics Letters*, Vol. 89, 221101, November 2006

This article was the most downloaded from Applied Physics Letters website in December 2006, and was highlighted in Laser Focus World, October 2007 issue.

239. Hatice Altug, Dirk Englund, and Jelena Vuckovic, "Ultra-Fast Photonic Crystal Nanolasers," *Nature Physics,*Vol. 2, pp. 484-488, July 2006.

Also featured as the cover story of this *Nature Physics* issue, highlighted in the *Nature Photonics* Sample Issue, September 2006 (pp. 5), and in *Laser Focus World* (December 2006 and October 2007)

240. Edo Waks and Jelena Vuckovic, "Dispersive Properties and Large Kerr Nonlinearities Using Dipole Induced Transparency in a Single-Sided Cavity," *Physical Review A* Vol. 73, article 041803(R), April 2006.

241. Hatice Altug and Jelena Vuckovic, "Photonic Crystal Nanocavity Arrays," Invited Article for *IEEE LEOS Newsletter,* Vol. 20. No.2, pp.4-11, April 2006.

242. Dirk Englund and Jelena Vuckovic, "A Direct Analysis of Real Photonic Nanostructures," *Optics Express*, Vol. 14, pp.3472-3483 (April 2006).

243. Edo Waks and Jelena Vuckovic, "Dipole Induced Transparency in drop filter cavity-waveguide systems," *Physical Review Letters*, Vol. 96, article 153601 (April 2006).

244. Jelena Vuckovic, Dirk Englund, David Fattal, Edo Waks, and Yoshihisa Yamamoto, "Generation and Manipulation of Nonclassical Light Using Photonic Crystals," *Physica E*, Vol. 32, No. 1-2, pp.466-470, May 2006.

245. Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Coupling of PbS Quantum Dots to Photonic Crystal Cavities at Room Temperature," *Appl. Phys. Lett*., Vol. 87, Article 241102, Dec. 2005.

246. Hatice Altug and Jelena Vuckovic, "Photonic Crystal Nanocavity Array Laser," *Optics Express*, Vol. 13, No. 22, pp. 8819-8828, Oct. 2005.

Also featured in Stanford Report, Stanford Daily, Photonics Magazine, Physorg, Science Daily News, Telephony magazine, Laser Focus World, Photonics Spectra Magazine, etc.

247. Dirk Englund, Ilya Fushman, and Jelena Vuckovic, "General Recipe for Designing Photonic Crystal Cavities," *Optics Express*, Vol. 13, No. 16, pp. 5961-5975, Aug. 2005.

Also featured in Research Highlights in Optics in Nature: Caught Behind Bars, *Nature*, Vol. 436, pp. 1069, Aug. 25, 2005, and in *Nature Physics*: Henri Benisty, Photonic Crystals: New Designs to Confine Light, *Nature Physics*, Vol. 1, pp. 9, Oct. 2005.

248. Dirk Englund, David Fattal, Edo Waks, Glenn Solomon, Bingyang Zhang, Toshihiro Nakaoka, Yasuhiko Arakawa, Yoshihisa Yamamoto, and Jelena Vuckovic, "Controlling the Spontaneous Emission Rate of Single Quantum Dots in a 2D Photonic Crystal," *Phys. Rev. Lett*., Vol. 95, 013904, Jul. 2005.

Also featured in *Nature Photonics*, vol. 1, pp. 449-458, August 2007: “Spontaneous emission control by photonic crystals and nanocavities,” by Susumu Noda.

249. E. Waks and J. Vuckovic, "Coupled Mode Theory for Photonic Crystal Cavity-Waveguide Interaction," *Optics Express*, Vol. 13, No. 13, pp. 5064-5073, June 2005.

250. H. Altug and J. Vuckovic, "Experimental Demonstration of the Slow Group Velocity of Light in Two-Dimensional Coupled Photonic Crystal Microcavity Arrays," *Appl. Phys. Lett.*, Vol. 86, Article 111102, Mar. 2005.

Also featured on Physics Web and in Physics World (April 2005)

251. B. Zhang, G. S. Solomon, M. Pelton, J. Plant, C. Santori, J. Vuckovic, and Y. Yamamoto, "Fabrication of InAs Quantum Dots in AlAs/GaAs DBR Pillar Microcavities for Single Photon Sources," *J. Appl. Phys*., Vol. 97, Article 073507, Mar. 2005.

252. Y. Yamamoto, C. Santori, G. Solomon, J. Vuckovic, D. Fattal, E. Waks, and E. Diamanti, "Single Photons for Quantum Information Systems," *Progress in Informatics* No. 1, pp. 5-37, Jan. 2005.

253. H. Altug and J. Vuckovic, "Polarization Control and Sensing With Two-Dimensional Coupled Photonic Crystal Microcavity Arrays," *Opt. Lett*., Vol. 30, No. 9, pp. 982-984, May 2005.

254. H. Altug and J. Vuckovic, "Two-Dimensional Coupled Photonic Crystal Resonator Arrays," *Appl. Phys. Lett*., Vol. 84, pp. 161-163, Jan. 2004.

255. D. Fattal, K. Innoue, J. Vuckovic, C. Santori, G. Solomon, and Y. Yamamoto, "Entanglement Formation and Violation of Bell's Inequality With a Semiconductor Single Photon Source," *Phys. Rev. Lett*., Vol. 92, Article 037903, Jan. 2004.

256. M. Loncar, T. Yoshie, K. Okamoto, Y. Qiu, J. Vuckovic, and A. Scherer, "Planar Photonic Crystal Nanolasers (I): Porous Cavity Lasers," *IEICE Trans. on Electronics*, Vol. E87-C, No. 3, pp. 291-299, Mar. 2004.

257. C. Santori, D. Fattal, J. Vuckovic, G. Solomon, E. Waks, and Y. Yamamoto, "Sub-Microsecond Correlations in Photoluminescence From InAs Quantum Dots," *Phys. Rev. B*, Vol. 69, 205324, (May 2004.

258. P. Kumar, P. Kwiat, A. Migdall, S. W. Nam, J. Vuckovic, and F. N. C. Wong, "Photonic Technologies for Quantum Information Processing," Special Issue on *Focused on Quantum Computing*, Vol. 3, No. 1, pp. 215-231, Oct. 2004.

259. C. Santori, D. Fattal, J. Vuckovic, G. Solomon, and Y, Yamamoto, "Single-Photon Generation With InAs Quantum Dots," *New Journal of Physics*, Focus Issue on "Single Photons on Demand," Vol. 6, Article 89, Jul. 2004.

260. M. F. Yanik, H. Altug, J. Vuckovic and S. Fan, "Sub-Micron All-Optical Digital Memory and Integration of Nanoscale Photonic Devices Without Isolators," *J. Lightwave Technol.*, Vol. 22, No. 10, pp. 2316-2322, Oct. 2004.

261. C. Santori, D. Fattal, J. Vuckovic, G. S. Solomon, and Y. Yamamoto, "Generation of Single Photons and Correlated Photon Pairs Using InAs Quantum Dots," *Fortschritte der Physik-Progress of Physics*, Vol. 52, No. 11-12, pp. 1180-1188, Oct. 2004.

262. D. Fattal, C. Santori, J. Vuckovic, G. S. Solomon, and Y. Yamamoto, "Indistinguishable Single Photons From a Quantum Dot," *Physica Status Solidi B*, Vol. 238, No. 2, pp. 305-308, Jul. 2003.

263. J. Vuckovic, D. Fattal, C. Santori, G. Solomon, and Y. Yamamoto, "Enhanced Single Photon Emission from a Quantum Dot in a Micropost Microcavity," *Appl. Phys. Lett*., Vol. 82, No. 21, pp. 3596-3598, May 2003.

264. J. Vuckovic and Y. Yamamoto, "Photonic Crystal Microcavities for Cavity Quantum Electrodynamics with a Single Quantum Dot," *Appl. Phys. Lett*., Vol. 82, No. 15, pp. 2374-2376, Apr. 2003.

265. M. Pelton, J. Vuckovic, G. Solomon, C. Santori, B. Y. Zhang, J. Plant, and Y. Yamamoto, "An Efficient Source of Single Photons: A Single Quantum Dot in a Micropost Microcavity," *Physica E*, Vol. 17, (1-4) pp. 564-567, Apr. 2003.

266. A. Scherer, T. Yoshie, M. Loncar, J. Vuckovic, K. Okamoto, and D. Deppe, "Photonic Crystal Nanocavities for Efficient Light Confinement and Emission," *J. Korean Physical Society*, Vol. 42, Supplement S, pp. 768-773, Feb. 2003.

267. E. Waks, K. Inoue, C. Santori, D. Fattal, J. Vuckovic, G. Solomon, and Y. Yamamoto, "Secure Communication: Quantum Cryptography With a Photon Turnstile," *Nature*, Vol. 420, (6917), p. 762, Dec. 2002.

268. M. Pelton, C. Santori, J. Vuckovic, B. Zhang, G. S. Solomon, J. Plant, and Y. Yamamoto, "An Efficient Source of Single Photons: a Single Quantum Dot in a Micropost Microcavity," *Phys. Rev. Lett*., Vol. 89, No. 23, Article 233602, Dec.2002.

269. C. Santori, D. Fattal, J. Vuckovic, G. S. Solomon, and Y. Yamamoto, "Indistinguishable Photons From a Single-Photon Device," *Nature*, Vol. 419, (6907), pp. 594-597, Oct. 2002.

Also featured in the News and Views article by P. Grangier in the same issue of *Nature*: "Single photons stick together"

270. J. Vuckovic, M. Pelton, Y. Yamamoto, and A. Scherer, "Optimization of Three-Dimensional Micropost Microcavities for Cavity Quantum Electrodynamics," *Phys. Rev. A*, Vol. 66, No. 2, Article 023808, Aug. 2002.

271. J. Vuckovic, M. Loncar, H. Mabuchi, and A. Scherer, "Optimization of Q-factor in photonic crystal microcavities," *IEEE Journal of Quantum Electronics*, Vol. 38, No. 7, pp. 850-856, Jul. 2002.

272. A. Scherer, O. Painter, J. Vuckovic, M. Loncar, and T. Yoshie, "Photonic Crystals for Confining, Guiding, and Emitting Light," *IEEE Trans. on Nanotechnology*, Vol. 1, No. 1, pp 4-11, Mar. 2002.

273. M. Loncar, D. Nedeljkovic, T. P. Pearsall, J. Vuckovic, A. Scherer, S. Kuchinsky, and D. C. Allan, "Experimental and Theoretical Confirmation of Bloch-Mode Light Propagation in Planar Photonic Crystal Waveguides," *Appl. Phys. Lett*., Vol. 80, No. 10, pp. 1689-1691, Mar. 2002.

274. M. Pelton, J. Vuckovic, G. S. Solomon, A. Scherer, and Y. Yamamoto, "Three Dimensionally Confined Modes in Micropost Microcavities: Quality Factors and Purcell Factors," *IEEE J. Quantum Electronics*, Vol. 38, No.2, pp. 170-177, Feb. 2002.

275. J. Vuckovic, M. Loncar, H. Mabuchi, and A. Scherer "Design of Photonic Crystal Microcavities for Cavity QED," *Phys. Rev. E*, Vol. 65, Part 2, Article 016608, Jan. 2002.

276. T. Yoshie, J. Vuckovic, A. Scherer, H. Chen, and D. Deppe, "High Quality Two Dimensional Photonic Crystal Slab Cavities," *Appl. Phys. Lett*., Vol. 79, No. 26, pp. 4289-4291, Dec. 2001.

277. H. Mabuchi, M. Armen, B. Lev, M. Loncar, J. Vuckovic, H. J. Kimble, J. Preskill, M. Roukes, A. Scherer, "Quantum Networks Based on Cavity QED," *Quantum Information and Computation*, Vol. 1, Special Issue on "Implementation of Quantum Computation," pp. 7-12 (Month not available, 2001).

278. M. Loncar, J. Vuckovic and A. Scherer, "Methods for Controlling Positions of Guided Modes in Photonic Crystal Waveguides," *J. Optical Society of America B*, Vol. 18, No. 9, pp. 1362-1368, Sep. 2001.

279. B. Vucetic, V. Ponampalam, and J. Vuckovic, "Low Complexity Soft-Decision Decoding Algorithms for Reed-Solomon Codes," *IEICE Trans. Communications* (Special Issue on Innovative Mobile Communication Technologies at the Dawn of the 21st Century), Vol. E84-B, pp. 392-399, Mar. 2001.

280. J. Vuckovic, M. Loncar, and A. Scherer, "Surface Plasmon Enhanced Light Emitting Diode," *IEEE J. Quantum Electronics*, Vol. 36, No. 10, pp. 1131-1144, Oct. 2000.

281. M. Loncar, T. Doll, J. Vuckovic, and A. Scherer, "Design and Fabrication of Silicon Photonic Crystal Optical Waveguides," *J. Lightwave Technol*., Vol. 18, No. 10, pp. 1402-1411, Oct. 2000.

282. M. Loncar, D. Nedeljkovic, T. Doll, J. Vuckovic, A. Scherer, and T. P. Pearsall, "Waveguiding in Planar Photonic Crystals," *Appl. Phys. Lett*., Vol. 77, No. 13, pp. 1937-1939, Sep. 2000.

283. T. Doll, J. Vuckovic, M. Hochberg, and A. Scherer, "Low-Energy Electron Beam Focusing in Self-Organized Porous Alumina Vacuum Windows," *Appl. Phys. Lett*., Vol. 76, No. 24, pp. 3635-3637, Jun. 2000.

284. J. Vuckovic, O. Painter, Y. Xu, A. Yariv, and A. Scherer, "Finite-Difference Time-Domain Calculation of the Spontaneous Emission Coupling Factor in Optical Microcavities," *IEEE J. Quantum Electron*., Vol. 35, No. 8, pp.1168-1174, Aug. 1999.

285. Y. Xu, J. S. Vuckovic, R. K. Lee, O. J. Painter, A. Scherer, and A. Yariv, "Finite-Difference Time Domain Calculation of Spontaneous Emission Lifetime in a Microcavity," *J. Optical Society of America B*, Vol. 16, , No. 3, pp. 465-474, Mar. 1999.

286. O. Painter, J. Vuckovic, and A. Scherer, "Defect Modes of a Two-Dimensional Photonic Crystal in an Optically Thin Dielectric Slab," J. Optical Society of America B, Vol. 16, No. 2, pp. 275-285, Feb. 1999.

NON-REFEREED PUBLICATIONS

1. Jelena Vuckovic, “Editorial: A Vision for Physical Review Applied,” *Physical Review Applied,* vol. 22, 050001 (2024)
2. Daniil Lukin, Melissa Guidry, Jelena Vuckovic, “Silicon Carbide: From Abrasives to Quantum Photonic Technologies,” *Optics and Photonics News* March 2021, pp. 34-41
3. Ki Youl Yang, Jinhie Skarda, Michele Cotrufo, Avik Dutt, Geun Ho Ahn, Mahmoud Sawaby, Dries Vercruysse, Amin Arbabian, Shanhui Fan, Andrea Alu, and Jelena Vuckovic, “Bias-free low-loss nonreciprocal transmission and routing in silicon photonics,” OPN (Optics and Photonics News), Optics in 2020, *Optics and Photonics News,* Dec. 2020.
4. Alexander Y. Piggott, Jesse Lu, and Jelena Vuckovic, “Silicon Photonics: Design approach to integrated photonics explores entire space of fabricable devices,” *Laser Focus World*, vol. 52, No. 3, pp. 24-28, March 2016

   Also featured on the cover of *Laser Focus World*, March 2016 issue
5. Yasuhiko Arakawa, Jonathan Finley, Rudolf Gross, Fabrice Laussy, Enrique Solano, Jelena Vuckovic Editorial of the Focus Issue on Focus on Cavity and Circuit Quantum Electrodynamics in Solids, *New Journal of Physics*, Feb. 2014
6. Jeremy O’Brien, Brian Patton, Masahide Sasaki, and Jelena Vuckovic, Editorial of the Focus Issue on Integrated Quantum optics, *New Journal of Physics*, Feb. 2013

7. Jelena Vuckovic, O. Benson, J. O'Brien, and M. Loncar, Introduction to the Issue on Quantum and Nanoscale Photonics, *IEEE Journal of Selected Topics in Quantum Electronics*, vol. 18, No. 6, pp. 1627-1628 (2012)
8. Gary Shambat, Bryan Ellis, Jan Petykiewicz, and Jelena Vuckovic, "Electrically driven Electrically driven photonic crystal cavities yield low-power optoelectronic devices," *SPIE Newsroom*, February 2012
9. Jelena Vuckovic, "Quantum nanophotonics," *Azoquantum.com (Quantum science thought leaders series)*, June 2011
10. Dirk Englund, Andrei Faraon, Ilya Fushman, and Jelena Vuckovic, "Single photon nonlinear optics on photonic crystal chips," *SPIE Newsroom*, January 2009
11. Barry Sanders, Jelena Vuckovic and Philippe Grangier, "Single Photons on Demand," *Europhysics News*, Vol. 36, No. 2, pp. 56-58, March/April 2005.
12. Dirk Englund, Andrei Faraon, Ilya Fushman, and Jelena Vuckovic, "Quantum information processing on photonic crystal chips," *SPIE Newsroom*, January 2008

BOOKS

1. Jelena Vuckovic, Rahul Trivedi, "Introduction to optical cavities," (2023)

BOOK CHAPTERS

1. Alexander White, Geun Ho Ahn, Ki Youl Yang, Jelena Vuckovic, "Nonlinear optical isolators", in *Integrated Optical Isolators, Springer Series in Optical Sciences, 2024*
2. Rahul Trivedi, Daniil Lukin, Jelena Vuckovic, "Quantum optics and nonclassical light generation," invited book chapter in *Proceedings of nternational Physics School "E. Fermi", Course 204 on "Nanoscale Quantum Optics,"* Varenna, edited by Mario Agio et al, *Italian Physical Society in partnership with IOS Press, Amsterdam* (2020)
3. Jinhie Skarda, Geun-Ho Ahn, Rahul Trivedi, Tony Wu, Subhasish Mitra, Jelena Vuckovic, "Inverse design for optical interconnects," invited book chapter in *"Silicon Photonics for High Performance Computing and Beyond," edited by Mahdi Nikdast*, *CRC Press/Taylor & Francis Group* (2022)
4. Marina Radulaski, Jelena Vučković, "Quantum Photonics Incorporating Color Centers in Silicon Carbide and Diamond," *Proceedings on Latest achievements inPphysics on the Occasion of the 20th Anniversary of the "Prof. Dr Marko V. Jaric" Foundation* [book chapter] (2018)
5. "Nonclassical Light Generation from III-V and Group-IV Solid-State Cavity Quantum Systems," Marina Radulaski, Kevin A. Fischer, and Jelena Vuckovic, an invited book chapter in *Advances in Atomic, Molecular and Optical Physics*, vol. 66, chapter 11. edited by Susanne Yelin, Elsevier (2017) (arXiv:1701.03039)

6. "Quantum optics and cavity QED with quantum dots in photonic crystals," Jelena Vuckovic, *invited book chapter* in "Lectures of Les Houches Summer School on Nanophotonics and Quantum Optics," edited by Claude Fabre, Vahid Sandoghdar, and Nicolas Treps, Oxford University Press (2017) (arXiv:1402.2541)
7. "Inverse design of nanophotonic structures," Jesse Lu and Jelena Vuckovic, *invited book chapter* in "Numerical optimization techniques for metamaterial design," edited by Kenneth Diest, Springer Topics in Applied Physics, vol. 127 (2013)
8. "Photonic Crystal Cavity Lasers" by Yiyang Gong, Bryan Ellis, and Jelena Vuckovic, *invited book chapter* in "Quantum dot Devices," edited by Zhiming M. Wang, Lecture Notes in Nanoscale Science and Technology, Springer-Verlag (2012)
9. Arka Majumdar, Michal Bajcsy, Kelly Rivoire, Sonia Buckley, Andrei Faraon, Erik Kim, Dirk Englund, and Jelena Vuckovic, "Quantum optics with single quantum dots in photonic crystal cavities," *invited book chapter* in "Quantum optics with semiconductor nanostructures", edited by Frank Jahnke, Woodhead Publishing (2012)
10. A. Faraon and J. Vuckovic, "Quantum dots in photonic crystal cavities," *invited book chapter* in "Quantum Dots: optics, electron transport and future applications," edited by A. Tartakovskii, Cambridge University Press (2012)
11. H. Iwase, Y. Gong, D. Englund, and J. Vuckovic, "Spontaneous emission control in a plasmonic structure," *Invited Book chapter* in "Nanoscale Photonics and Optoelectronics" ed. by Zhiming M. Wang and Arup Neogi, Lecture Notes in Nanoscale Science and Technology, vol. 9, Springer-Verlag (2010)
12. H. Altug, D. Englund, and J. Vuckovic, "Photonic crystal microcavity light sources," *Invited book chapter* in "Comprehensive Semiconductor Science and Technology," edited by P. Bhattacharya, Elsevier (2010)
13. D. Englund, A. Faraon, I. Fushman, B. Ellis, and J. Vuckovic, "Physics and applications of quantum dots in photonic crystals," *Invited book chapter in* "Single Semiconductor Quantum Dots," edited by Peter Michler, Springer Book series on NanoScience and Technology," Springer (2008)
14. J. Vuckovic, D. Englund, A. Faraon, I. Fushman, and E Waks, "Quantum Information Processing With Quantum Dots in Photonic Crystals," *Invited book chapter in* "Semiconductor Quantum Bits," edited by Oliver Benson and Fritz Henneberger, Pan Stanford Publishing (2008)
15. C. Santori, D. Fattal, J. Vuckovic, M. Pelton, G. Solomon, E. Waks, D. Press, Y. Yamamoto, "Pillar microcavities," *Invited book chapter in* "Practical applications of microresonators in optics and photonics," edited by A. Matsko, CRC (2009)
16. P. Kumar, P. Kwiat, A. Migdall, S.W. Nam, J. Vuckovic, and F.N.C. Wong, "Photonic Technologies for Quantum Information Processing," *Invited book chapter in* "Experimental Aspects of Quantum Computing," edited by Henry Everitt, Springer (2005)
17. J. Vuckovic, C. Santori, D. Fattal, M. Pelton, G. Solomon, and Y. Yamamoto, "Cavity Enhanced Single Photons From a Quantum Dot," *Invited book chapter in* Optical Microcavities, Ed: Kerry Vahala (World Scientific, 2004).

18. Y. Yamamoto, M. Pelton, C. Santori, G. S. Solomon, O. Benson, J. Vuckovic, and A. Scherer, "Regulated Single Photons and Entangled Photons From a Quantum Dot Microcavity," *Invited book chapter in* Semiconductor Spintronics and Quantum Computation, Eds: D. D. Awshalom, D. Loss, and N. Samarth, pp. 277-305 (Springer-Verlag, Berlin, Heidelberg, 2002).

PATENTS

1. Conner Ballew, Alain Maestrni, Goutam Chattopadhyay, GeunHo Ahn, Jelena Vuckovic, Volumetric Grating Couplers for THz Integrated Photonics, Caltech Disclosure CIT-9448-P (1/12/2026)
2. Jelena Vuckovic, Eric Rosenthal, Chris Anderson, "A 3-Wave Mixing Element with Quantum Paraelectric Materials," Stanford disclosure 25-543 (November 2025)
3. Geun Ho Ahn, Sydney Mason, Jelena Vuckovic, Mark Brongersma, Hyonghan Kwon, "Moolithic platform for programmable metasurface emission through active control using integrated photonics," US provisional patent Appl. No.: 63/839654, Stanford Disclosure S25-248 (June 2025)
4. Chris Anderson, Gio Scuri, Jelena Vuckovic, Aaron Chan, Lu Li, "Efficient cryogenic electro-optic and piezo-electric nonlinearity achieved by isotope substitution," Stanford disclosure S25-260, US Provisional patent 63/855025 filed (August 2025)
5. Aviv Karnieli, Charles Roques-Carmes, Paul-Alexis Mor, Eran Lustig, Jamison Sloan, Jelena Vučković, David A. B. Miller, and Shanhui Fan, Self-configuring optical networks for continuous-variable quantum information processing, provisional patent 63/794810, Stanford Disclosure S25-076 (February 2025)
6. Geun Ho Ahn, Sungjun Eun, Jesse Lu, Jelena Vuckovic, "Single-Mode Polarization Insensitive Grating Coupler," Stanford disclosure S24-236, US patent filed CT/US2025/036482 (July 2025)
7. Sydney Mason, Geun Ho Ahn, Jesse Lu, Jelena Vuckovic, "Inverse Designed Wavelength Division Multiplexer Integrated with Distributed Bragg Grating through Co-optimization," Stanford disclosure S24-211, US patent filed, Appl. No.: 63/666450 (July 2025)
8. Joshua Yang, Daniil, Lukin, Kasper Van Gasse, Jelena Vuckovic, "Wafer-Scale Thin-Film Titanium:Sapphire Photonics," Stanford disclosure S24-146, US nd International patents filed PCT/US2025/025983 (May 2025)
9. Alexander White, Geun Ho Ahn, Kasper Van Gasse, Richard Luhtaru, and Jelena Vuckovic, "Integration of Solid-State Gain Crystals with Nonlinear Photonics for Narrow Linewidth and Mode-Locked Lasers on chip," Stanford disclosure S24-109, US patent filed PCT/US2025/027557 (May 2025)
10. Jelena Vuckovic, Kasper Van Gasse, Daniil Lukin, Joshua Yang, "Diode-pumped photonic integrated titanium-sapphire waveguide amplifier," Stanford disclosure S23-369, US patent filed 63/544919, international patent filed Appl. No.: PCT/US2024/052126 (October 2024)

11. Jelena Vuckovic, Kiyoul Yang, Geun Ho Ahn, “Inverse designed fiber to chip grating coupler at CMOS photonic foundry,” Stanford disclosure S23-294 (July 2023)
12. Alexander White, Geun Ho Ahn, Kasper Van Gasse, Jelena Vuckovic, “Integrated Laser Stabilization with Built-In Isolation,” Stanford disclosure 22-318, US Patent Application No: 19/108497, International patent PCT/US2023/032287 (March 2025)
13. Eric Rosenthal, Christopher Anderson, Jelena Vuckovic, "Strong spin-microwave coupling for quantum technologies ," Stanford disclosure S22-107, US Patent Appl. No.: 18/121412 (March 2023)
14. Sattwik Deb Mishra, Rahul Trivedi, Amir H. Safavi-Naeini, and Jelena Vuckovic, “Optimized quantum transduction,” US patent filed, Appl. No.: 17/715748 Stanford disclosure S20-514 (April 2022)
15. Daniil Lukin, Jelena Vuckovic, “Silicon-Carbide-on-Insulator via photoelectrochemical etching,” Stanford disclosure S20-362, US patent issued No. 17/466768 (Feb. 2024)
16. Dries Vercruysse, Jelena Vuckovic, “Serpentine Optical Phased Array with dispersion matched waveguides,” Stanford disclosure S20-131, US patent 12019268 issued on 6/25/2024; Japan patent applicaton PCT/US2021/043113 KR Appl. No.: 10-2023-7006636 issued May 2024
17. Geun Ho Ahn, Melissa Guidry, Daniil Lukin, Kiyoul Yang, Jelena Vuckovic, Chip “Integrated Titanium:Sapphire Laser,” Stanford disclosure S19-291, US patent filed, application number 17/629709, European patent issued No. 4005039 (June 2024)
18. Dries Vercruysse, Jelena Vuckovic, “Dispersion engineered phase array,”, US patent 16/885833 filed May 28 2020, US patent 11467468 issued on 10/11/2022, Stanford disclosure S19-073 (Feb. 2019)
19. Rahul Trivedi, Logan Su, Jelena Vuckovic, “Fast and Accurate Large-Scale Optimization of Metasurfaces", Stanford disclosure S18-558 (Jan 2019)
20. Constantin Dory, Daniil Lukin, Jelena Vuckovic, “Diamond Thin Films via Quasi-Isotropic Etch,” Stanford disclosure S18-552, US provisional patent 62/817168 filed (March 2019)
21. Daniil Lukin, Constantin, Dory, Jelena Vuckovic, “Silicon-Carbide-on-Insulator (SiCOI),” Stanford disclosure S18-553, US Patent 16/805073 filed Feb 2020
22. Amani Hariri, Constantin Dory, Alyssa Cartwright, Jelena Vuckovic, Tom Soh, “Optical real-time biosensor,” U.S. Patent No. 17/286,912 issued Dec. 2023 (Stanford Disclosure S18-455)
23. Logan Su, Alex Piggott, Dries Vercruysse, Rahul Trivedi, Neil Sapra, Jelena Vuckovic, “Title: Fully-automated design of grating couplers,” filed January 25, 2018 (Stanford Disclosure S18-019)
24. Jesse Lu, Jan. Petykiewitz, Alex Piggott, Logan Su, Dries Vercruysse, Neil Sapra, Jinhie Skarda, Rahul Trivedi, Geun Ho Ahn, Jelena Vuckovic, “SPINS: Stanford Photonics Inverse Design Software,” filed January 22, 2018 (Stanford Disclosure S18-012)
25. Logan Su, Alexander Piggott, Jelena Vuckovic, “Wavelength-demultiplexing grating couplers,” provisional patent 62/518,195 filed, June 12 2017 (Stanford disclosure S17-214)

26. Gary Shambat, Jelena Vuckovic, “Biological cell nanocavity probes,” US patent 9310352, Issued April 12, 2016 (Stanford disclosure S12-312)
27. Donguk Nam, Jan Petykiewicz, David Sukhdeo, Jelena Vuckovic, and Krishna Saraswat, “ Crossed Nanobeam Structure for a Low-Threshold Germanium Laser,” US Patent 9595812, issued March 14, 2017 (Stanford disclosure S12-191)
28. Jesse Lu and Jelena Vuckovic, “Inverse design algorithm for nanophotonic structures,” Stanford disclosure S12-034 (Feb. 2012)
29. Kelley Rivoire, Sonia Buckley, and Jelena Vuckovic, "A practical multiply resonant photonic crystal nanocavity," US Patent filed Apr. 2013, US 13/857,413 (Stanford disclosure S11-472, November 2011)
30. Gary Shambat, Bryan Ellis, Jelena Vuckovic, "An ultrafast photonic crystal cavity single-mode light-emitting diode," US. Patent 8,829,638, Issued Sept. 9, 2014 (Stanford disclosure S11-467)
31. Gary Shambat, Jelena Vuckovic, "Optical fibers functionalized with photonic crystal resonant optical structures," US Patent 9588254, Issued March 7 2017 (Stanford disclosure S11-256)
32. Bryan Ellis, Ilya Fushman, Jelena Vuckovic, “A practical electrically pumped photonic crystal nanocavity,” US. Patent 8,471,352; Issued June 25, 2013 (Stanford disclosure S09-427)
33. Dirk Englund, Ilya Fushman, Andrei Faraon, and Jelena Vuckovic, “Ultrafast, ultralow threshold single emitter optical switch,” US patent 8,355,606, issued February 2013 (Stanford disclosure S07-282)
34. A. Faraon, I. Fushman, D. Englund, and J. Vuckovic, “Optical Cavity Emitter Arrangements With Spectral Alignment And Methods Therefor,” US patent 7,994,467, issued Aug. 9, 2011 (Stanford disclosure S07-078)
35. E. Waks and J. Vuckovic, “Optical switching based on dipole induced transparency,” US Patent 7,848,603, issued on Dec. 7 2010 (Stanford disclosure S05-380/CON).
36. E. Waks and J. Vuckovic, “Dipole induced transparency in photonic crystal cavity-waveguide system,” US patent No. 7,630,604; Issued Dec. 2009 (Stanford disclosure S05-380)
37. I. Fushman, D. Englund, and J. Vuckovic, "A Simple and Reusable Method for Controllable Coupling of Colloidal Quantum Dots and Other Nanocrystals to Photonic Crystals," Stanford disclosure S05-197 (US patent filed, May 2007)
38. H. Altug and J. Vuckovic “Coupled photonic crystal resonator array arrangements and applications,” US patent No. 7,206,488, Issued on April 17, 2007 (Stanford disclosure S03-238)
39. J. Vuckovic and Y. Yamamoto "Half-Wavelength Micropost Microcavity With Electric Field Maximum in the High-Refractive-Index Region," US patent No. 7,292,613, issued on Nov. 6, 2007 (Stanford disclosure S02-806)

40. M. Loncar, J. Vuckovic, and A. Scherer, "Methods for Controlling Positions of Guided Modes of the Photonic Crystal Waveguides," U.S. Patent No. 6,944,384, Issued Sept. 13, 2005.
41. A. Scherer and J. Vuckovic, "High Resolution Electron Projection," U.S. Patent No. 6,515,292, Issued February 4, 2003.
42. A. Scherer, J. Vuckovic, and M. Loncar, "Surface Plasmon Enhanced LED and the Method of Operation of the Same," U.S. Patent No. 6,534,798, Issued March 18, 2003.
43. A. Scherer, J. Vuckovic, M. Loncar, and H. Mabuchi, "Photonic Crystal Microcavities for Strong Coupling Between an Atom and the Cavity Field," U.S. Patent No. 6,466,709, Issued October 15, 2002.

PLENARY, KEYNOTE, AND TUTORIAL TALKS

1. Jelena Vuckovic, *SPIE-Active Photonic Platforms, Nanoscience+Engineering Symposium,* San Diego, CA, August 23-27, 2026 [keynote]

2. Jelena Vuckovic, *Conference on silicon carbide quantum device integration,* Bad Honnef, Germany, August 9-13, 2026 [keynote]
3. Jelena Vuckovic, *META 2026*, Dublin, Ireland, July 14-17, 2026 [keynote]
4. Jelena Vuckovic, *CLEO Science and Innovations,* Charlotte NC, 17-21 May 2026 [tutorial]
5. Jelena Vuckovic, "Inverse Design of High-Performance Photonic Integrated Circuits" *Optical Fiber Communication Conference and Exhibition (OFC)*, Los Angeles Convention Center, Los Angeles, California, USA, March 15-19, 2026 [tutorial]
6. Jelena Vuckovic, *Optica Incubator on PHz Electronics,* Washington, DC, November 12-14, 2025 [keynote]
7. Jelena Vuckovic, *NANOP Conference*, Laboratoire Charles Fabry de l'Institut d'Optique, Paris, France, October 2025 [plenary]
8. Jelena Vuckovic, *Metamaterials Congress*, Amsterdam, the Netherlands, September 1-4, 2025 [plenary]
9. Jelena Vuckovic, *Optica Quantum 2.0*, San Francisco, CA, June 1-5, 2025 [keynote]
10. Jelena Vuckovic, *QTech 2024 - Quantum Technology International Conference*, Berlin, Germany, Sept. 2024 [plenary]
11. Jelena Vuckovic, *AES, The International Conference on Antennas and Electromagnetic Systems,* Rome, Italy, June 2024 [keynote]
12. Jelena Vuckovic, *Photonics North Conference*, Vancouver, Canada, on May 28-30th, 2024 [keynote]
13. Jelena Vuckovic, *International Conference on the Physics of Quantum* Dots (QD2024), Munich, Germany, March 18th-22nd 2024 [plenary]

14. Jelena Vuckovic, *Australian and New Zealand Conference on Optics and Photonics (ANZCOP) and Australian Institute of Physics (AIP) Summer Meeting*, Canberra , Australia December 4-8, 2023 [plenary]
15. Jelena Vuckovic, *Humboldt Award Winners' Forum 2023,* "Quantum Science: from Foundations to Instrumentation", Bonn, October 18 – 21 2023 [plenary]
16. Jelena Vuckovic, *ECOC,* Glasgow, UK, October 1-5, 2023 [tutorial]
17. Jelena Vuckovic, *META 2023, The 13th International Conference on Metamaterials, Photonic Crystals and Plasmonics,* Paris, France, July 18 - 21 2023 [plenary]
18. Jelena Vuckovic, *Opto-Electronics and Communications Conference (OECC)*, July 2-6, 2023 [plenary]
19. Jelena Vuckovic, *Inflection Forum, Applied Materials Engineering Technology (ET) Conference*, Las Vegas, NV, June 2023 [plenary]
20. Jelena Vuckovic, *Photonics North*, Niagra Falls, Canada, May 2022 [plenary]
21. Jelena Vuckovic*, ICPS 2020 (International Conference on Physics of Semiconductors), Perspectives in Semiconductor Physics: Nobel Laureates, Community Leaders*, Sydney, Australia, June 26-July 1st, 2022 [plenary]
22. Jelena Vuckovic, *Photonics & Electromagnetics Research Symposium (PIERS),* April 2022 [keynote]
23. Jelena Vuckovic, *Optical Fiber Communication Conference and Exhibition (OFC) 2022*, San Diego, CA, March 2022 [tutorial]
24. Jelena Vuckovic, *SPIE Photonics West OPTO*, San Francisco, California, Jan 22 – 27, 2022 [plenary]
25. Jelena Vuckovic, *Photonics Days*, Belgrade, Serbia, December 2021 [keynote]
26. Jelena Vuckovic, *SIT Insights in Technology 2021*, December 2021 [keynote]
27. Jelena Vuckovic, *Spanish Optical Society Annual Meeting*, Nov. 2021 [plenary]
28. Jelena Vuckovic, *Annual Spring Meeting of the German Physical Society DPG*, Berlin, Germany, Sept. 27-Oct. 1st 2021 [plenary]
29. Jelena Vuckovic, *Hybrid Photonic and Quantum Low-dimensional Materials Symposium*, Sandia National Labs, September 21-23, 2021 [plenary]
30. Jelena Vuckovic, *MetaNano 2021* [keynote]
31. Jelena Vuckovic, *OSA Optical Imaging and Sensing*, July 2021 [plenary]
32. Jelena Vuckovic, *Photonics North*, May 31st - June 2nd, 2021 [keynote]
33. Jelena Vuckovic, *Quantum Days*, January 2021 [keynote]
34. Jelena Vuckovic, *Photonics Online Meetup*, January 2021 [tutorial]
35. Jelena Vuckovic, *European Semiconductor Laser Workshop 2020* [keynote]
36. Jelena Vuckovic, *Quantum 2020,* October 19-22 2020 [plenary]

37. Jelena Vuckovic, "Optimized Photonics," *14th Pacific Rim Conference on Lasers and Electro-Optics (CLEO Pac Rim)*, Sydney, Australia, Aug 2-6, 2020 [tutorial]
38. Jelena Vuckovic, *OSA Advanced Photonics Conference*, Montreal, Canada, July 13-16, 2020 [plenary]
39. Jelena Vuckovic, *Quantum Technologies conference at SPIE Photonics Europe*, Strasbourg, France, March 29 - April 2 2020 [plenary]
40. Jelena Vuckovic, *Aspen Winter Conference on Quantum Information and Systems for Fundamental Physics,* Aspen, CO, Feb. 17-22, 2020 [public lecture]
41. Jelena Vuckovic *Micro- and Nanophotonics Days 2019*, Centre for Nanoscience and Nanotechnology of the CNRS, Paris Saclay, November 20-21, 2019 [keynote]
42. Jelena Vuckovic*, IEEE Photonics Society Annual Meeting (IPC)*, San Antonio, TX, October 2019 [plenary]
43. Jelena Vuckovic, *Frontiers in Optics - Laser Science (FiO-LS) Conference*, Washington, D.C. September 16-19, 2019 [visionary talk]
44. Jelena Vuckovic, *2019 SPIE Optics + Photonics meeting*, August 2019 [plenary]
45. Jelena Vuckovic, 10th International Conference on Metamaterials, Photonic Crystals and Plasmonics (META 2019) will be held in Lisbon - Portugal, July 23-26, 2019 [keynote]
46. Jelena Vuckovic, *ICOLS 2019*, Queenstown, New Zealand, July 8-12, 2019
47. Jelena Vuckovic, a plenary presentation at the *Central European Workshop on Quantum Optics (CEWQO)*, Paderborn, Germany, June 3rd - 7th, 2019 [plenary]
48. Jelena Vuckovic, *IEEE New Frontiers in Computing (NFIC) Conference*, Stanford University, May 14, 2019 [keynote]
49. Jelena Vuckovic, "Quantum Photonics with Defect Centers," *European Conference on Atomic, Molecular and Optical Physics (ECAMP-13),* Florence, Italy April 8-12, 2019 [plenary]
50. Jelena Vuckovic, *Quantum Innovators in Science and Engineering workshop, the Institute for Quantum Computing (IQC)*, University of Waterloo, ON, Canada, Oct. 2018 [plenary]
51. Jelena Vuckovic, *Opportunities for Quantum Technologies 2018 (Quantum Opportunities 2018)*, *Quantum Tech Dialogue,* Vancouver, Canada, October 3rd, 2018 [keynote]
52. Jelena Vuckovic, "From inverse design to implementation of practical nanophotonics," *the 15th international conference on Near-field Optics, Nanophotonics and Related Techniques (NFO-15),* University of Technology of Troyes, Troyes, France, August 26-31st, 2018 [plenary]
53. Jelena Vuckovic, *Workshop on "The Quantum Internet; Charting the Critical Path,"* University of Toronto, Toronto, CA, Jun 21-23, 2018 [keynote]
54. Jelena Vuckovic, "Quantum hardware," *International Foresign Forum: Quantum Computing and Silicon Photonics*, Taipei, Taiwan, June 2018 [keynote]
55. Jelena Vuckovic, The DATE (Design, Automation, Test and Embedded Systems) Conference , NanoDay, Dresden, Germany, March 21, 2018 [keynote]

56. Jelena Vuckovic, *Symposium on "Advancing Electronics,"* Dresden excellence cluster "Center for Advancing Electronics Dresden (CfAED)", Dresden, Germany, 19 March 2018 [keynote]
57. Jelena Vuckovic, "Quantum nanophotonics," *CLEO (Conference on Lasers and Electro-Optics)*, San Jose, CA, June 5-10, 2016 [plenary]
58. Jelena Vuckovic, "Inverse design and implementation of compact and efficient nanophotonic circuits," *SPIE Optical Microlithography*, San Jose, CA, 21 - 25 February 2016 [keynote]
59. Jelena Vuckovic, "Nanophotonic devices: from nanolasers to single cell probes," *58th International Conference on Electron, Ion, Photon Beam Technology, and Nanofabrication (EIPBN2014,also known as "Three Beams")*, Washington, DC, May 27-30, 2014 [plenary]
60. Jelena Vuckovic, "Quantum Nano-Optics," *Annual Meeting of the German Physical Society (DPG)*, March 19, 2014 [plenary]
61. Gary Shambat and Jelena Vuckovic, "Single Cell Nanocavity Probes," Plenary session of the *BiOS Hot Topics*, BiOS/Photonics West conference, San Francisco February 1st, 2014
62. Jelena Vuckovic, "Quantum dots in optical nanocavities: from cavity QED to device applications," *Australian Institute of Physics Congress*, Sydney, Australia, Dec. 9-13, 2012 [plenary]
63. Jelena Vuckovic, "(Solid-state) cavity QED for quantum and classical information processing" *IEEE Summer Topical Meeting on "Entanglement Distribution in Quantum Communication and Beyond,*" Montreal, Quebec, Canada, July 18-20, 2011 [plenary]
64. Jelena Vuckovic, "Photonic crystals and quantum dots: from cavity QED, to single photon nonlinear optics and efficient information processing," *Photonica 2011, 3rd International School and Conference on Photonics*, Belgrade, Serbia August 29-Sept. 2nd 2011 [keynote]
65. Jelena Vuckovic, "Generation and Manipulation of Classical and Nonclassical Light Using Photonic Crystals," *12th Int'l Conf. on Modulated Semiconductor Structures (MSS12) and Int'l Conf. on Electronic Properties of Two-Dimensional Systems (EP2DS-16),* Albuquerque, NM, July 2005. [plenary]

INVITED TALKS AT MAJOR INTERNATIONAL CONFERENCES

66. Jelena Vuckovic, 11th Conference on Quantum Information and Quantum Control (CQIQC), Toronto, CA, Aug. 17-21, 2026
67. Jelena Vuckovic, *Gordon Conference on Quantum Science,* Stone Hill College, July 26 - 31, 2026
68. Jelena Vuckovic, *AI Photonics26,* Donostia/San Sebastián, Spain, June 15-18, 2026
69. Jelena Vuckovic, *DAMOP 2026,* Focus Session on Quantum Integrated Photonics, Providence, RI, June 1-5, 2026
70. Jelena Vuckovic, *MRS Spring Meeting, Symposium on Photonics and Optoelectronics in Advanced Thin-Film Oxides and Nitrides*, Honolulu, Hawaii, April 26 – May 1, 2026

71. Jelena Vuckovic, *MRS Spring Meeting, Symposium on Pathways to Sustainable High-Performance Materials, Processes, Devices, and Systems Across the Semiconductor Supply Chain,* Honolulu, Hawaii, April 26 – May 1, 2026
72. Jelena Vuckovic, *MRS Fall Meeting and Exhibit*, Emerging Dynamic Materials in Integrated Optics and Photonics, Boston, MA, Nov. 30 – Dec. 5, 2025
73. Jelena Vuckovic, *MRS Fall Meeting and Exhibit*, Emerging Materials for Quantum Information Technologies.Boston, MA, Nov. 30 – Dec. 5, 2025
74. Giovanni Scuri, Jelena Vuckovic, *PIERS*, Chiba, Japan, November 2025
75. Jelena Vuckovic, the special symposium "Quantum Sensing and Decoherence in Solid-State and Photonics Systems" *German Physical Society (DPG) Fall Meeting*, Göttingen, Germany, Sept 8th-12th 2025
76. Jelena Vuckovic, "Quantum many-body systems with individually controlled semiconductor spin qubits in nonlinear optical resonators," *Gordon Conference on Quantum Control*, Salve Regina University, Rhode Island, August 3-8, 2025
77. Sydney Mason, Jelena Vuckovic, *SPIE Optics + Photonics conference on Optical Design Automati*on, San Diego, CA Aug 3-7, 2025
78. Geun Ho Ahn, Jelena Vuckovic, *SPIE Active Photonic Platforms (APP) 2025 conference, SPIE Optics and Photonics*, San Diego, CA, August 3-7, 2025
79. Jelena Vuckovic, *Advanced Photonics Congress*, Marseille, France, July 2025
80. Giovanni Scuri, Jelena Vuckovic, *MRS Spring Meeting,* Seattle, Washington, April 7-11, 2025
81. Jelena Vuckovic, *OFC 2025's Special Session for the Year of Quantum*, OFC, San Francisco, CA, March-April 2025
82. K. Van Gase, J. Yang, D. Lukin, M. Guidry, G. Ahn, A. White, Jelena Vuckovic, "Titanium-sapphire-on-insulator photonics for chip-scale laser systems," *OPIC/ICNNQ,* Yokohama, Japan, 2025
83. Charles Roques-Carmes, Aviv Karnieli, Jakob Grzesik, Dominic Catanzaro, Olav Solgaard, Jelena Vučković, and Shanhui Fan , "Nanophotonic engineering of interactions between free electrons and light-matter systems," *APS March Meeting*, Anaheim, March 2025
84. Jelena Vuckovic, *Photonics West conference "Photonic and Phononic Properties of Engineered Nanostructures," Optoelectronics 2025 Symposium*, San Francisco, CA, 25-30 January 2025
85. Jelena Vuckovic, *Photonics West conference OE201: Integrated Optics: Devices, Materials, and Technologies XXIV,* San Francisco, CA, January 25-30, 2025
86. Jelena Vuckovic, *IEDM*, San Francisco, CA, December 7-11, 2024
87. Eric Rosenthal, Jelena Vuckovic, MRS F24-077 Diamond functional Devices: From Material to Applications, *MRS Fall Meeting*, Boston, Massachusetts, December 1-6, 2024
88. Jelena Vuckovic, *Stanford Accelerate Edtech Impact Summit*, Stanford, November 18, 2024

89. Jelena Vuckovic, *Conference on New Perspectives in Many-body Physics with Quantum Optical Systems,* KITP, UCSB, Santa Barbara, CA, Oct. 2024
90. Souvik Biswas, Jelena Vuckovic, *Frontiers in Optics (FiO) meeting,* Denver, Colorado, USA, from 23-26 September.
91. Jelena Vuckovic, *International Conference on Quantum Optics and Quantum Information (IQOQI)*, Innsbruck, Austria, September 16-20, 2024
92. Kasper Van Gasse, Jelena Vuckovic, *The 16th Pacific Rim Conference on Lasers and Electro-Optics (CLEO-PR 2024),* Incheon, Korea, August 2024
93. Souvik Biswas, Jelena Vuckovic, *APS Division of Atomic, Molecular, and Optical Physics (DAMOP) DAMOP 2024*, Fort Worth, Texas, June 2024
94. Jelena Vuckovic, *SPIE Photonics West - Silicon Photonics XIX,* San Francisco, CA January 27th-Feb 1st 2024
95. Melissa Guidry, Jelena Vuckovic, *SPIE Photonics West/Quantum West conference on Quantum Computing, Communication, and Simulation IV*, San Francisco, CA January 27th-Feb 1st 2024
96. Jelena Vuckovic, *Photonics and Quantum Electronics (PQE),* Snowbird, Utah, Jan 7-12, 2024
97. Giovani Scuri, Jelena Vuckovic, *MRS Fall Meeting,* Symposium EL12, "Perspective on Applications of Metasurfaces—Advances in Metasurface Design, Fabrication, Integration and Material" (Symposium EL12), Boston, MA, Nov-Dec. 2023
98. Daniil Lukin, Jelena Vuckovic, *IEEE Photonics Conference (IPC),* Orlando Florida November 12-16, 2023
99. Jelena Vuckovic, *SPIE Optics & Photonics Symposium, Conference on Metamaterials, Metadevices, and Metasystems,* San Diego, CA, August 20 - 24, 2023
100. Jelena Vuckovic, *SPIE Optics & Photonics Symposium, Advanced Photonics Conference,* San Diego, CA, August 20 - 24, 2023
101. Jelena Vuckovic, *Quantum 2.0,* Denver, CO, June 19 -22, 2023
102. Jelena Vuckovic, *Special Symposium on "Solid-State Based Quantum Optics Enabled by Focused Ion Beam Implantation: Applications and Challenges," CLEO,* San Jose, CA, May 7-12, 2023
103. K.Y.Yang, C.Shirpurkar, A.D.White, J.Zang, L.Chang, F.Ashtiani, M.A.Guidry, D.M.Lukin, S.V.Pericherla, J.Yang, H.Kwon, J.Lu, G.H.Ahn, K.Van Gasse, Y.Jin, S.-P.Yu, T.C.Briles, J.R.Stone, D.R.Carlson, H.Song, K.Zou, H.Zhou, K.Pang, H.Hao, L.Trask, M.Li, A.Netherton, L.Rechtman, J.S.Stone, J.L.Skarda, L.Su, D.Vercruysse, J.P.W.MacLean, S.Aghaeimeibodi, M.-J.Li, D.A.B.Miller, D.M.Marom, A.E.Willner, J.E.Bowers, S.B.Papp, P.J.Delfyett, F.Aflatouni, and J.Vuckovic, "Optical data transmission using inverse-designed silicon multimode photonic circuits and spectrally flattened microcombs," *CLEO*, San Jose, CA, May 2023
104. Geun Ho Ahn, Jelena Vuckovic, *PECS XIII*, March 2023, Tokyo, Japan

105. Melissa Guidry, Jelena Vuckovic, *APS March Meeting*, March 2023, Las Vegas, NV

106. Daniil Lukin, Jelena Vuckovic, *OFC Workshop "Will optics have a role to play in scaling out future quantum computing architectures," OFC,* March, 2023, San Diego, CA

107. Jelena Vuckovic, *Session on Innovation, ISSCC 2023 (International Solid State Circuits Conference),* San Francisco, CA, Feb 19-23, 2023

108. Jelena Vuckovic, *SPIE Photonics West,* Conference on Photonic and Phononic Properties of Engineered Nanostructures, San Francisco, CA, January-February 2023

109. Jelena Vuckovic, *SPIE Photonics West/Quantum West conference on Quantum Computing, Communication, and Simulation III,* San Francisco, CA, January-February 2023

110. Daniil Lukin, Jelena Vuckovic*, 68th Annual AVS International Symposium and Exhibition (AVS 68)* November 6-11, 2022, Pittsburgh, PA

111. Jelena Vuckovic, *Frontiers in Optics,* October 10th-15th, 2022, Rochester, NY

112. Jelena Vuckovic, *Frontiers of Quantum Information Science*, Vienna, Austria, September 4- 9, 2022

113. Jelena Vuckovic, *Nanotechnology Meets Quantum Information,* San Sebastian, Spain, August 29-September 2, 2022

114. Jelena Vuckovic, *Quantum Technologies Symposium at OPTICA's Advanced Photonics Congress,* Maastricht, The Netherlands, 25-28 July 2022

115. Daniil Lukin, Jelena Vuckovic, *Conference on Defects in Solids for Quantum Technologies (DSQT2020)*, Stockholm, Sweden, June 2022

116. Daniil Lukin, Jelena Vuckovic, *Photonics for Quantum*, Rochester Institute of Technology, Rochester, June 6-9, 2022.

117. Alison E. Rugar, Shahriar Aghaeimeibodi, Daniel Riedel, Constantin Dory, Haiyu Lu, Patrick J. McQuade, Zhi-Xun Shen, Nicholas A. Melosh, and Jelena Vuckovic, "Quantum Photonics with Tin-Vacancy Centers in Diamond," *APS March Meeting*, Chicago, IL, March 2022

118. Daniil Lukin, Jelena Vuckovic, "Quantum Conputing, Communication and Simulation", *Photonics West-OPTO-2022,* San Francisco, CA, January 2022

119. Kiyoul Yang, Jelena Vuckovic, OE303 "High Contrast Metastructures IX", *Photonics West-OPTO-2022,* San Francisco, CA, January 2022

120. Jelena Vuckovic, *International Symposium on Novel materials and quantum Technologies (ISNTT) 2021,* NTT, Japan, December 2021

121. Shahriar Aghaeimeibodi, Jelena Vuckovic, *IEEE International Electron Devices Meeting (IEDM),* San Francisco, CA, Dec. 2021

122. Jelena Vuckovic, *Symposium EQ01 "Quantum Optical Materials and Devices Based on Impurity Systems" at Materials Research Society (MRS) Fall 2021 Meeting,* Boston, MA, Nov. 28-Dec. 3, 2021

123. Kiyoul Yang, Jelena Vuckovic, *Photonics & Electromagnetics Research Symposium (PIERS), "SC2&SC3: Intelligent Photonics",* November 2021

124. Jelena Vuckovic, *OSA Conference on Photonics in Switching and Computing*, *September* 27-29, 2021

125. Kiyoul Yang, Jelena Vuckovic, Automotive LIDAR 2021 conference, September 21-23 (2021)

126. Jelena Vuckovic, Special Session on "Fundamental Performance Limits in Photonics" *Metamaterials Congress*, New York City on Sept. 20-25, 2021

127. Daniil Lukin, Jelena Vuckovic, *Quantum Appliecations Conference (QuApps2021),* "Materials and Enabling Technologies for Quantum Technology", September 2021

128. Jelena Vuckovic, *IEEE Optical MEMS and Nanophotonics Conference and Summer School*, August 2021

129. Jelena Vuckovic, *SPIE Optics & Photonics symposium, Conference on Metamaterials, Metadevices, and Metasystems*, Special session on Deep Learning in Photonics, San Diego, CA, Aug. 1-5, 2021

130. Jelena Vuckovic, *OSA Nonlinear Optics Topical Meeting,* Waikoloa Beach Marriott Resort & Spa, Waikoloa Beach, Hawaii United States, July 12-15, 2021

131. Jelena Vuckovic, *Conference on Lasers and Electro-Optics Europe (CLEO/Europe) and the European Quantum Electronics Conference (EQEC)*, Munich, Germany, June 20 - 24, 2021

132. Jelena Vuckovic, *Electron Beam Spectroscopy for Nano-Optics (EBSN),* June 2021

133. Jelena Vuckovic, *Optical Fiber Communications (OFC), Workshop on Quantum Photonic Emitters and Integrated Quantum Photonics,* June 2021

134. Jelena Vuckovic, *Conference on Lasers and Electro-Optics (CLEO)*, *Special Symposium on Microwave-to-optical quantum interconnects,* San Jose, CA, May 9-14, 2021.

135. Jelena Vuckovic, "Scalable quantum systems combining spins in semiconductors, optimized photonics, and Floquet engineering," *APS March Meeting, Advances in Quantum Technologies: Hybrid Systems (DQI) ,* March 2021

136. Jelena Vuckovic, *Photonic and Phononic Properties of Engineered Nanostructures, Photonics West,* San Francisco CA, March 2021

137. Jelena Vuckovic, *Integrated Optics: Devices, Materials, and Technologies conference, Photonics West,* San Francisco CA, March 2021

138. Jelena Vuckovic, *Photonics Spectra Conference*, January 2021

139. Jelena Vuckovic, *MRS 2020 Fall meeting,* Boston, USA, November 29 - December 4, 2020

140. Jelena Vuckovic, *IEEE Photonics Conference (IPC2020),* Vancouver, Canada 27 September - 1 October 2020

141. Jelena Vuckovic, *Frontiers in Optics/ Laser Science,* Washington DC, September 13-17, 2020

142. Dries Vercruysse, Jelena Vuckovic, *IEEE Research and Applications of Photonics in Defense (RAPID) Conference*, Sandestin Beach, Florida, Aug. 10-12, 2020

143. Guillermo Angeris, Rahul Trivedi, Logan Su, Stephen Boyd, Jelena Vuckovic, "Computational bounds of photonic devices,", *META2020,* Warsaw, Poland, July 20-23, 2020

144. Jelena Vuckovic, "Connecting and scaling semiconductor quantum photonic systems," *Photonics for Quantum (PfQ2),* Rochester Institute of Technology (RIT), June 2020

145. Jelena Vuckovic, "Quantum integrated photonics," *CLEO Science and Innovations*, San Jose, CA, May 2020

146. Jelena Vuckovic, "From inverse design to implementation of practical phtonics," *MRS Spring Meeting*, Phoenix, Arizona, April 13 -17, 2020

147. Logan Su, Jelena Vuckovic, *2020 International Applied Computational Electromagnetics Society (ACES) Symposium,* March 22-26, 2020, in Monterey, California, USA

148. Jelena Vuckovic, *Special Symposium on Quantum Information Science and Technology (QIST), Optical Fiber Communication Conference and Exhibition (OFC 2020)*, San Diego, CA, March 9-10, 2020

149. Jelena Vuckovic, *APS March Meeting*, Denver, CO, March 2-6, 2020

150. Jelena Vuckovic, *Aspen Winter Conference on Quantum Information and Systems for Fundamental Physics,* Aspen, CO, Feb. 17-22, 2020

151. Jelena Vuckovic, Rahul Trivedi, Winter Colloquium on the Physics of Quantum Electronics (PQE), Snowbird, UT, Jan 5-10, 2020.

152. Kiyoul Yang, Jinhie Skarda, Jelena Vuckovic, "From inverse design to implementation of practical photonics," *IEEE/ACM ICCAD Conference*, Westminster, CO, Nov. 2019

153. Logan Su, Jelena Vuckovic, Workshop on "New modelling challenges in optical communications," *European Conference on Optical Communication 2019, ECOC2019*, Dublin, Ireland, Sept. 2019

154. Jelena Vuckovic, *Symposium on "Nanoscale and molecular assemblies: Designing matter to control energy transport" Fall 2019 American Chemical Society Meeting, San Diego, CA from August 25 - 29, 2019*

155. "Inverse design and demonstration of laser driven particle accelerators on chip, Neil V. Sapra, Ki Youl Yang, Dries J. F. Vercruysse, Kenneth Liddle, Dylan Black, Logan Su, Rahul Trivedi, Yu Miao, Olav Solgaard, Bob Byer, Jelena Vučković, *SPIE Optics + Photonics,* San Diego, CA, Aug. 2019

156. Jelena Vuckovic, *SPIE Optics & Photonics conference on "Quantum Nanophotonics Materials, Devices and Systems,* San Diego , CA August 11-15, 2019

157. Jelena Vuckovic, *Quantum Symposium at the OSA Advanced Photonics Congress,* San Francisco, CA, July 29-Aug. 1, 2019

158. Kiyoul Yang, Jelena Vuckovic, *O5 (Optical Passive Devices and Modules) Conference, OECC/PSC 2019*, Fukuoka, Japan, July 7-11, 2019

159. Logan Su, Jelena Vuckovic, *IEEE Photonics Society, Summer Topical Meeting*, Ft. Lauderdale, Florida, July 8-10, 2019

160. Logan Su, Jelena Vuckovic, special workshop on *Artificial Intelligence in Nanophotonics,* a part of the *International Work-Conference on Artificial Neural Networks (IWANN2019)*, June 12-14, 2019 in Gran Canaria, Canary Islands, Spain

161. Constantin Dory, Jelena Vuckovic, *63rd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN),* Minneapolis, MN, 28-31 May, 2019

162. Jelena Vuckovic, KITP conference *Exploring Open Quantum Systems in Quantum Simulators*, KITP (Kavli Institute for Theoretical Physics), UCSB, CA April 29 - May 3, 2019

163. Constantin Dory, Jelena Vuckovic, "Diamond quantum photonics," *Symposium EP11 on "Hybrid Materials and Devices for Enhanced Light-Matter Interactions,"* 2019 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 22 - 26, 2019

164. Logan Su, Jelena Vuckovic, *"Design and Optimization for Nanophotonics: Multiscale Techniques" 2019 International Applied Computational Electromagnetics Society (ACES) Symposium,* April 14-18, 2019, Miami, Florida, USA

165. Jelena Vuckovic, *Symposium on "Photonic and Phononic Properties of Engineered Nanostructures" Conference in Optoelectronics 2019 Symposium, Photonics West,* San Francisco, CA, February 2-9, 2019

166. Shuo Sun, Jelena Vuckovic*, 49th Winter Colloquium on the Physics of Quantum Electronics (PQE-2019)*, Snowbird, UT, January 6-11, 2019

167. Jelena Vuckovic, *OSA Laser Congress,* Boston, MA, November 4-8, 2018

168. Jelena Vuckovic, *Quantum Science and Engineering, Quantum Materials and Applications Session, 65th Annual AVS International Symposium and Exhibition (AVS 65),* Oct 21 – Oct 26, 2018 in Long Beach, CA.

169. Jelena Vuckovic, "Connecting quantum systems through optimized photonics," *Frontiers in Optics/Laser Science (FiO/LS)*, Washington DC, September 2018

170. Jelena Vuckovic, "From Inverse Design to Implementation of Robust and Practical Photonics," *SPIE Conference on Metamaterials, Metadevices, and Metasystems 2018, Optics & Photonics symposium, Special Session on Engineered Materials for Extreme Optics and Imaging,* San Diego, CA, USA, August 19 - August 23, 2018

171. Jelena Vuckovic, "Connecting quantum systems through optimized photonics," *Gordon Research Conference on Quantum Science,* Stonehill College, Easton, MA, July 29 - August 3, 2018

172. Jelena Vuckovic, "From Inverse Design to Implementation of Robust Nanophotonics," *Integrated Photonics Research (IPR) Conference, OSA Advanced Photonics Congress*, ETH Zurich, July 2-5, 2018

173. Jelena Vuckovic, *10th international Quantum Dot Conference – QD2018*, Toronto, ON, Canada, June 25-29, 2018

174. Jelena Vuckovic, "Optimized photonics: from on-chip nonclassical light sources to circuits," *Conference on Lasers and Electro-Optics* (*CLEO)*, San Jose, CA, May 14-18, 2018

175. Jelena Vuckovic, *Conference on Challenges in Quantum Information Science (CQIS2018)*, National Institute of Informatics (NII), Tokyo, Japan, April 2018

176. Jelena Vuckovic, *NIM Conference on Resonator QED*, Munich, Germany, August 29 - September 1, 2017

177. Jelena Vuckovic, *ETH 2017 Monte Verita Meeting on "Frontiers in Quantum Nanophotonics,"* Monte Verita, Switzerland, August 20-25, 2017

178. Jelena Vuckovic, "Quantum Nanophotonics," *Metamaterials, Metadevices, and Metasystems Conference, SPIE Nanoscience + Engineering Symposium,* San Diego, CA, Aug. 6-10, 2017

179. Tomas Sarmiento, Jelena Vuckovic, *IEEE Summer Topical Meeting*, San Juan, Puerto Rico, July 2017

180. Jelena Vuckovic, *23th International Conference on Laser Spectroscopy (ICOLS-17),* Arcachon, France, July 2 - 8, 2017

181. Jelena Vuckovic, "Inverse design and implementation of optical structures" *International Conference on Computation Photography (ICCP 2017),* Stanford, May 12-14, 2017

182. Kevin Fischer, Jelena Vuckovic, "Quantum nanophotonics," *Symposium on Novel Photonic, Electronic and Plasmonic Phenomena in Materials (ED13), MRS Spring Meeting,* Phoenix, AZ, April 17th - 21st, 2017

183. Linda Zhang, Jelena Vuckovic, "Quantum nanophotonics," *Entangled photon and nonclassical light session, SPIE Defense and Commerce conference,* Anaheim, California, April 9-13,2017

184. Marina Radulaski, Jelena Vuckovic, "Quantum nanophotonics: from inverse design to implementations," Photonic and Phononic Properties of Engineered Nanostructures" conference in Optoelectronics 2017 Symposium, *Photonics West*, San Francisco, CA, January 28-February 2, 2017 I

185. Konstantinos Lagoudakis, Jelena Vuckovic, "Quantum nanophotonics: from inverse design to implementations," *Special Symposium on "Integrated Quantum Photonics," 100th Optical Society of America annual meeting (Frontiers in Optics), Rochester*, New York on October 17-21, 2016

186. Kai Mueller, Jelena Vuckovic, *Nonlinear Optics and Excitation Kinetics in Semiconductors (NOEKS-13),* Dortmund, Germany, October 9-13, 2016

187. Jelena Vuckovic, "(Quantum) nanophotonics: from inverse design to implementations," *PECS XII,* University of York, UK, July 18-21 2016

188. Jelena Vuckovic, Workshop on "Attosecond Non-linear Optics", *CLEO/QELS*, San Jose, CA, June, 2016.

189. Kevin Fischer, Jelena Vuckovic, "Strongly Coupled Quantum Dot-Nanocavity Systems" *APS March Meeting*, Baltimore, MD, March 14-18, 2016

190. Jelena Vuckovic, "Low power nonlinear optics in nanophotonic structures," *Frontiers in Optics 2015/Laser Science XXXI (FiO/LS)*, *FiO 6: Quantum Electronics (Nonlinear Optics in Micro/Nano-Optical Structures),* San Jose, CA, 18-21 October 2015

191. Alexander Piggott, Jelena Vuckovic, "Inverse nanophotonic design," *IEEE Photonics Conference (IPC)*, Reston, VA, 4-8 October 2015

192. Jelena Vuckovic, "Quantum Nanophotonics," *Fundamental Optical Processes in Semiconductors (FOPS)*, Breckenridge, Colorado, August 2-7, 2015

193. Kai Mueller, Jelena Vuckovic, "Quantum Nanophotonics," *META 2015, the 6th International Conference on Metamaterials, Photonic Crystals and Plasmonics*, New York City, 4-7 August 2015

194. Shashank Gupta, Dave Sukhdeo, Jan Petykiewicz, Donguk Nam, Jelena Vuckovic, and Krishna C. Saraswat, "Light Emission from Strain Engineered Germanium for Silicon Compatible Optical Interconnects," *PIERS*, Prague, July 2015

195. Marina Radulaski, Jelena Vuckovic, *Conference on Lasers and Electro-Optics Europe (CLEO/Europe) and the European Quantum Electronics Conference (EQEC)*, Munich, Germany, June 21 - 25, 2015.

196. Jelena Vuckovic, *Atomic Physics Gordon Conference,* Salve Regina University, Newport, RI June 14 - 19, 2015.

197. Jelena Vuckovic, *Photonics North 2015, Special Symposium on Quantum Information with Atoms, Molecules, and Photons,* Ottawa June 9th to 11th, 2015

198. K. G. Lagoudakis, P. L. McMahon, K. Fischer, K. M. Mueller, T. Sarmiento, D. Dalacu, P. J. Poole, M. E. Reimer, V. Zwiller, Y. Yamamoto, and J. Vuckovic, "Coherent control and optical pumping of spins in self-assembled and site-controlled quantum dots," *16th International Conference on Physics of Light–Matter Coupling in Nanostructures (*PLMCN*),* Medellin, Colombia February 3-8, 2015

199. Jelena Vuckovic, Alex Piggott, Jesse Lu, "Inverse design and implementation of nanophotonic structures," *SPIE Photonics West*, *Optoelectronics 2015 Symposium "Photonic and Phononic Properties of Engineered Nanostructures,"* San Francisco, CA, Feb. 7-12, 2015

200. Konstantinos Lagoudakis, Jelena Vuckovic, "Quantum emitters in optical nanocavities: physics and applications," *Innovative Resonator-Emitter Coupled Systems, Frontiers in Optics/Laser Science,* Tucson, AZ, Oct 19-23, 2014

201. Arka Majumdar, Armand Rundquist, Sonia Buckley, Jonghwan Kim, SanfengWu, Michal Bajcsy, Feng Wang, Xiaodong Xu, Jelena Vučković, "Towards few-photon optoelectronics with photonic crystal devices," *Frontiers in Optics/Laser Science,* Tucson, AZ, Oct 19-23, 2014

202. Kai Mueller, Jelena Vuckovic, "Generation of non-classical light on-chip using cavity quantum-electrodynamics," *International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM)*, Haikou, China, October 24-27, 2014.

203. Jelena Vuckovic, “Quantum and nonlinear optical devices based on photonic crystal and nanometallic cavities,” *Session on “Optical Micro/Nano Resonators and Devices” at IEEE Photonics Conference,* San Diego, CA, October 12-16, 2014

204. Jelena Vuckovic, “Quantum and nonlinear optics at the single photon level with quantum dots in optical nanocavities,” *APS March Meeting, Symposium on "Quantum Control of Molecular, Nano, and Plasmonic Materials,*" Denver, CO, March 3-7, 2014

205. Jelena Vuckovic, *Symposium on Quantum Dot and Nanostructures, Photonics West*, San Francisco, February 1 – 6, 2014

206. Thomas Babinec, Jelena Vuckovic, *PQE2014, "Cavity enhanced light-matter interactions,"* Snowbird, UT, January 5-9, 2014

207. Jelena Vuckovic, “Quantum dots in photonic crystal cavities: from quantum optics to nano-lasers and intra-cellular probes,” *Frontiers in Optics (FiO)*, Orlando, FL, Oct. 2013

208. Tomas Sarmiento, Jelena Vuckovic, *SemiconNano2013, 4th International Workshop on Epitaxial Growth and Fundamental Properties of Semiconductor Nanostructures,* Lake Arrowhead, CA, Oct. 2013

209. Jelena Vuckovic, “Optical nanocavities: from light sources to single cell probes,” *IEEE Photonics Conference 2013*, Bellevue, Washington, September 2013

210. Sonia Buckley, Jelena Vuckovic, *Special Symposium on “Nanophotonics and Metamaterials Ideas for Telecoms and Data Processing,” European Conference on Optical Communications (ECOC)*, London, UK, September 2013

211. Jelena Vuckovic, “Cavity QED with quantum dots in photonic crystals,” *Conference on Resonator QED*, Munich, Germany, September 2013

212. Jelena Vuckovic, Arka Majumdar, Michal Bajcsy, Armand Rundquist, “Nonclassical light sources based on quantum dots in optical nanocavities,” *Active Photonic Materials V, SPIE Optics and Photonics Congress*, San Diego, CA, August 2013

213. Jan Petykiewicz, Gary Shambat, Bryan Ellis, Tomas Sarmiento, Alexander Piggott, Jelena Vuckovic, “Electrically controlled photonic crystal nanocavity sources and modulators,”, *IEEE Summer Topical Meeting on Micro- and Nano-Cavity Integrated Photonics*, Waikoloa, Hawaii, July 2013

214. Jelena Vuckovic, “Quantum dots in optical nanocavities: from cavity QED to device applications,” *MRS Spring Meeting*, *Symposium on* Resonant Optics in Metallic and Dielectric Structures: Fundamentals and Applications San Francisco, CA, April 2013

215. Sonia Buckley, Jelena Vuckovic, *SPIE Photonics West,* Conference on “Photonic and Phononic Properties of Engineered Nanostructures,” “Nonlinear optics with nW optical powers in photonic crystals,” San Francisco, February 2-7, 2013

216. Jan Petykiewicz, Jelena Vuckovic, *SPIE Photonics West,* Conference on "Physics and Simulation of Optoelectronic Devices XXI," “Design of electrically injected lateral PC lasers,” San Francisco, February 2-7, 2013

217. Michal Bajcsy, Jelena Vuckovic, *SPIE Photonics West,* Conference on "Advances in Photonics of Quantum Computing, Memory, and Communication VI (OE117)," Session on

"Ultra-Low Power Switching in Quantum and Nonlinear Photonics," San Francisco, February 2-7, 2013

218. Jelena Vuckovic, *MRS Fall Meeting*, *Symposium on Optically Active Nanostructures,* "Quantum dot-photonic crystal based optoelectronic devices operating at the quantum limit," Boston, MA, Nov. 2012

219. Jelena Vuckovic, "Photonic crystal nanocavity lasers and modulators," *IEEE Photonics Conference*, Burlingame, CA, Sept. 23-27, 2012

220. Gary Shambat, Jelena Vuckovic, "Ultrafast photonic crystal single mode LED," *International Conference on Solid State Devices and Materials (SSDM)*, Kyoto, Japan, Sept. 2012

221. Jelena Vuckovic, "Cavity QED and quantum optics with a single quantum dot in a photonic crystal cavity or a photonic molecule," *23rd International Conference on Atomic Physics (ICAP 2012),* session on "Quantum optics and cavity QED," Ecole Polytechnique, Palaiseau, Paris, July 23-27, 2012

222. Jelena Vuckovic, "Nanophotonics for quantum optics", *OSA Integrated Photonics Research, Silicon and Nano-Photonics (IPR)*, Colorado Springs, Colorado June 17-22, 2012

223. Jelena Vuckovic, Arka Majumdar, Michal Bajcsy, Armand Rundquist, Dirk Englund, Andrei Faraon, "Strong photon-photon and photon – phonon interaction in a coupled quantum dot- photonic crystal nanocavity," *PECS-X*, Santa Fe, New Mexico, June 3–8, 2012

224. Jelena Vuckovic, "Quantum dots in optical nanocavities: from cavity QED to device applications," *7th International Conference on Quantum Dots (QD 2012)*, Santa Fe, New Mexico, USA, May 14 -18, 2012

225. Jelena Vuckovic, "Ultra-low threshold and high speed electrically pumped photonic crystal nanocavity lasers and LEDs," *CLEO*, San Jose, CA, May 2012

226. Jelena Vuckovic, "Quantum dot - nanocavity QED for quantum information processing," Focus session on "Semiconductor-based quantum communication" *Spring meeting of the German Physical Society*, Berlin, Germany, March 2012

227. Jelena Vuckovic, " Strong photon-photon interaction in a coupled quantum dot-photonic crystal nanocavity," *APS March Meeting*, session on "Strongly interacting photons," Boston, MA, Feb-March 2012

228. Jelena Vuckovic, Bryan Ellis, Gary Shambat, Jan Petykiewicz, Marie Mayer, Tomas Sarmiento, Eugene Haller, Jim Harris, "Electrically injected photonic crystal nanolaser," *Novel In-Plane Semiconductor Lasers XI* (OE122) Conference, SPIE Photonics West, San Francisco, CA, Jan 2012

229. Jelena Vuckovic, Arka Majumdar, Alexander Papageorge, Armand Rundquist, Yiyang Gong, Erik Kim, and Michal Bajcsy, "Opto-mechanics and quantum dot-nanocavity QED," *Frontiers in Optics,* San Jose, CA, 16-20 October 2011.

230. Jelena Vuckovic, Bryan Ellis, Gary Shambat, Arka Majumdar, Andrei Faraon, " Ultra-low threshold lasers and modulators based on optical nanocavities," *SPIE Optics and Photonics, Active Photonic Materials IV*, San Diego, CA, Aug 21-25, 2011

231. Jelena Vuckovic, "(Solid state) cavity QED and applications" *Gordon Conference on Atomic Physics*, Mount Snow Resort, West Dover, VT, June 26-July 1, 2011

232. Jelena Vuckovic, "Photonic crystal cavities: from nonlinear optics at a few photons level, to fast, energy efficient information processing" *CLEO Europe - EQEC (Conference on Lasers and Electro-Optics Europe and the European Quantum Electronics Conference)*, Munich, Germany May 22-27, 2011

233. Jelena Vuckovic, " Nonlinear optics in photonic crystal nanocavities: from light sources to quantum photonic interfaces," *Photonic and Phononic Properties of Engineered Nanostructures, Optoelectronics 2011, Photonics West*, San Francisco, CA, 22-27 January 2011

234. Jelena Vuckovic, IEEE 2011 Winter Topical "Low dimensional Nanostructures and Subwavelength Photonics," Keystone, Colorado, Jan 10-12, 2011 [invited tutorial]

235. Jelena Vuckovic, "Silicon nanocavity based light sources," *MRS Fall Meeting*, Boston, November 2010

236. Jelena Vuckovic, "Fast and energy efficient (silicon CMOS compatible) sources and modulators based on photonic crystals," *PECS IX (9th International Conference on Photonic and Electromagnetic Crystal Structures),* Granada, Spain, Sept. 26-30, 2010.

237. Jelena Vuckovic, Kelley Rivoire, Arka Majumdar, Ilya Fushman, Dirk Englund, Andrei Faraon, "Nonlinear optics (at a single photon level) in photonic crystal nanocavities," *Special Symposium, SIAM Conference on Nonlinear Waves and Coherent Structures (NW10)*, Philadelphia, Pennsylvania, August 16-19, 2010.

238. Jelena Vuckovic, Bryan Ellis, Arka Majumdar, Gary Shambat, Andrei Faraon, and Dirk Englund, "Fast and energy efficient optical switches and modulators based on photonic crystals," *Photonics in Switching 2010 Topical Meeting,* Santa Cruz/Monterey, CA, July 25-29, 2010

239. Jelena Vuckovic, Arka Majumdar, Kelley Rivoire, Erik Kim, Andrei Faraon, Dirk Englund, Ilya Fushman, Hyochul Kim, and Pierre Petroff, "Quantum dot-nanocavity devices for information processing," *OSA IPR-2010* (Integrated Photonics, Silicon and Nano Photonics conference collocated with the OSA Photonics in Switching conference), Santa Cruz/Monterey, CA, July 25-29, 2010.

240. Jelena Vuckovic, Arka Majumdar, "Classical and quantum information processing with a single quantum dot in a photonic crystal nanocavity," The 22nd International Conference on Indium Phosphide and Related Materials (IPRM 2010), May 31 - June 4, Takamatsu, Kagawa, Japan

241. Arka Majumdar, Andrei Faraon, Carter Lin, Nicolas Manquest, Dirk Englund, Ilya Fushman, and Jelena Vuckovic, "Quantum and classical information processing with a single quantum dot in photonic crystal cavity," *The 6th International Conference on the Physics of Quantum Dots (QD2010)*, Nottingham, UK. April 25-30, 2010

242. Jelena Vuckovic "Active photonic crystal devices: from switches and modulators controlled with sub-fJ energies, to silicon-based light sources," *SPIE - Photonics West, Photonic and Phononic Crystal Materials and Devices,* San Francisco, CA, Jan. 23-28, 2010

243. Jelena Vuckovic, Andrei Faraon, Arka Majumdar, Carter Lin, Dirk Englund, "Optical manipulation of quantum dot excitons strongly coupled to photonic crystal cavities," *SPIE - Photonics West, Advances in Photonics of Quantum Computing, Memory, and Communication III,* San Francisco, CA, Jan. 23-28, 2010

244. Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to ultra-low energy optical switching," *International Conference on Quantum Information and Technology,* National Institute of Informatics, Tokyo, Japan, Dec. 3-5, 2009.

245. Jelena Vučković, Maria Makarova, Yiyang Gong, Selcuk Yerci, Rui Li, Luca Dal Negro, Erbium Doped Silicon Photonic Crystals for Light Sources and Amplifiers, *OSA Frontiers in Optics*, San Jose, CA, Oct. 11-15, 2009

246. Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," *Conference on Quantum Information and Quantum Control (QCIC)*, Fields Institute, University of Toronto, Toronto, CA, Aug. 24-27, 2009

247. Jelena Vuckovic, "Photonic crystal nanocavities: from active nanophotonics, to quantum information processing and nonlinear optics at a single photon level," *DAMOP*, Session *on Quantum Information with Matter and Light*, University of Virginia, Charlottesville, May 19-23, 2009

248. Jelena Vuckovic, "Photonic crystal nanocavities: from active nanophotonics, to quantum information processing and nonlinear optics at a single photon level" *MRS Spring Meeting, Symposium on "Plasmonics, metamaterials, and light localization,"* San Francisco, CA, April 13-17, 2009

249. Jelena Vuckovic, "Cavity QED in photonic crystals: from quantum information processing to single photon nonlinear optics," *PECS VIII (8th International Photonic & Electromagnetic Crystal Structures Meeting*), Sydney, Australia, April 5-9th, 2009.

250. Andrei Faraon, Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Photon blockade in a photonic crystal cavity with a strongly coupled quantum dot," *SPIE Annual Meeting, Photonics West, Symposium on "Advanced Optical Concepts in Quantum Computing, Memory, and Communication II",* San Jose, CA (Jan. 2009)

251. Dirk Englund, Andrei Faraon, Ilya Fushman, Jelena Vuckovic, "Optical probing and manipulation of single quantum dots in photonic crystal cavities," *SPIE Annual Meeting, Photonics West, Symposium on "Advanced Optical Concepts in Quantum Computing, Memory, and Communication II",* San Jose, CA, USA, January 2009

252. Jelena Vuckovic, Dirk Englund, Andrei Faraon, Ilya Fushman, and Arka Majumdar "Quantum Dots in Photonic Crystals: from single photon sources to single photon nonlinear optics," *SPIE Annual Meeting, Photonics West, Symposium on single photon sources,* San Jose, CA, USA, January 2009

253. Jelena Vuckovic, Dirk Englund, Andrei Faraon, Ilya Fushman, "Cavity QED, single photon nonlinear optics, and quantum information processing with quantum dots in photonic crystals," Frontiers *in Optics/Laser Science, XXIV annual meeting,* Rochester, NY, Oct. 19-23, 2008

254. Dirk Englund, Jelena Vuckovic, "Classical and quantum light sources based on photonic crystals," *SPIE Optics and Photonics Meeting,* San Diego, Aug. 10-14, 2008

255. Jelena Vuckovic, Andrei Faraon, Ilya Fushman, Dirk Englund, "Controlling photonic

crystal cavity reflectivity with a single quantum dot: from quantum information processing to single photon nonlinear optics," *European Materials Research Society (EMRS) Spring Meeting*, Symposium on Active materials in photonic crystals for (strong) light matter coupling, Strasbourg, France, May 26-30, 2008

256. Jelena Vuckovic, Dirk Englund, Ilya Fushman, Bryan Ellis, and Hatice Altug, "Ultrafast photonic crystal nanocavity lasers and optical switches," *SPIE Photonics West Conference*, Conference on "Physics and Simulation of Optoelectronic Devices," San Jose, CA, Jan. 2008

257. Jelena Vuckovic, Dirk Englund, Andrei Faraon, Ilya Fushman, Vanessa Sih "Quantum information processing with quantum dots in photonic crystals," *SPIE Photonics West Conference*, Conference on "Advanced Optical Concepts in Quantum Computing, Memory and Communication," San Jose, CA, Jan. 2008

258. Jelena Vuckovic, Dirk Englund, Andrei Faraon, Ilya Fushman, Bryan Ellis, and Hatice Altug "Photonic crystal chips for optical interconnects and quantum information processing," *SPIE Photonics West Conference,* Conference on "Photonic Crystal Materials and Devices," San Jose, CA, Jan. 2008

259. Jelena Vuckovic, Ilya Fushman, Andrei Faraon, Dirk Englund, Bryan Ellis, Yiyang Gong, and Maria Makarova, "Photonic crystal chips for classical and quantum information processing," *ISCS (International Symposium on Compound Semiconductors)*, Kyoto, Japan, Oct. 15-18, 2007

260. Jelena Vuckovic, Ilya Fushman, Andrei Faraon, Dirk Englund, and Bryan Ellis, "Nonlinear optical processes in photonic nanocavities," *OSA Nonlinear Optics Topical Meeting*, Kona, Hawaii, July 30-August 3 2007

261. Jelena Vuckovic, Hatice Altug, Dirk Englund, and Bryan Ellis, "Coupled photonic crystal nanocavity arrays," *CLEO/EUROPE-IQEC 2007*, Munich, Germany, 17 – 22 June 2007

262. Jelena Vuckovic, Andrei Faraon, Dirk Englund, and Ilya Fushman, "Cavity QED with quantum dots in photonic crystals," *the 9th Rochester Conference on Coherence and Quantum Optics (CQO9)*, the University of Rochester, the Symposium on quantum optics in mesoscopic condensed matter devices June 10-13, 2007.

263. Hatice Altug, Dirk Englund and Jelena Vučković, "High Speed Dynamics of Photonic Crystal Nanocavity Laser," *IEEE LEOS Annual Meeting*, Montreal, Canada, Nov. 2006

264. Jelena Vuckovic, "Quantum optics and quantum information processing with photonic crystal devices" *APS LS/OSA XXII Meeting (Quantum Optics in Photonic Materials)*, Rochester, NY, Oct. 2006.

265. Edo Waks, Dirk Englund, Andrei Faraon, Ilya Fushman, Jelena Vuckovic "Nanophotonic devices for quantum information processing," *Third Feynman Festival*, University of Maryland, August 2006.

266. Jelena Vuckovic, Dirk Englund, Ilya Fushman, Andrei Faraon, and Edo Waks, "Quantum information processing with quantum dot-photonic crystal devices," *IEEE/LEOS Summer Topical Meeting on Quantum Information*, Quebec City, Digest. pp. 6-7, Canada, July 2006.

267. Jelena Vuckovic, Ilya Fushman, Dirk Englund, Andrei Faraon, Edo Waks, "Quantum information processing with quantum dot-photonic crystal devices," *Conference on Coherent*

Control of the Fundamental Processes in Optics and X-Ray Optics, Nizhny Novgorod – Kazan, Russia, June 29-July 4, 2006.

268. Jelena Vuckovic, "Photonic crystal microcavities for classical and quantum information processing," *ICTON06 (8th International Conference on Transparent Optical Networks)*, Special Session on Microresonators and Photonic Molecules: Trapping, Harnessing, and Releasing Light, Proceedings pp. 75-76, Nottingham, U.K., June 2006.

269. Jelena Vuckovic, Dirk Englund, Edo Waks, Ilya Fushman, and Andrei Faraon, "Nanophotonic devices for quantum information processing," *CLEO/QELS, Joint CLEO/QELS Session on Enabling Technologies for Quantum Communication*, Long Beach, CA, May 2006.

270. Jelena Vuckovic, Dirk Englund, Hatice Altug, Ilya Fushman, Edo Waks, "Nanophotonic devices for classical and quantum information processing," *NIMS Conference on Photonic Processes in Semiconductor Nanostructures*, Tsukuba, Japan, March 2005.

271. Jelena Vuckovic, Dirk Englund, Hatice Altug, Ilya Fushman, Edo Waks, "Photonic crystal devices for quantum and nanoscale photonics," *SPIE (The International Society for Optical Engineering) Optics East Conference*, Boston, MA, October 2005.

272. Jelena Vuckovic, Dirk Englund, David Fattal, Edo Waks, Bingyang Zhang, Glenn Solomon, Toshihiro Nakaoka,Yasuhiko Arakawa, and Yoshihisa Yamamoto, "Single Photon Source Based on a Quantum Dot in Photonic Crystal," *IQEC/CLEO Pacific Rim*, Tokyo, Japan, July 2005.

273. Edo Waks, Dirk Englund, David Fattal, and Jelena Vuckovic, "Photonic-crystal based single photon source," *SPIE Annual Meeting*, San Diego, CA, July 2005

274. Jelena Vuckovic, "Quantum Dot-Photonic Crystal Devices and Circuits for Quantum Information Processing," *Quantum Communications Research Conference (QCRC)*, Boulder, CO, June 1-3, 2005.

275. Jelena Vuckovic, Dirk Englund, David Fattal, Hatice Altug, Edo Waks, and Yoshihisa Yamamoto, "Photonic Crystal Devices for Quantum and Nanoscale Photonics," *NDSI'05 (Second Conference on Nanoscale Devices and System Integration)*, Houston, Texas, April 4-6, 2005.

276. Jelena Vuckovic, "Photonic Crystal Devices for Quantum and Nanoscale Photonics," *American Physical Society (APS) March Meeting*, Los Angeles, CA, March 2005.

277. Jelena Vuckovic, "Nanophotonic Devices for Quantum Information Science," *Gordon Research Conference on Quantum Information Science*, Ventura, CA, Feb. 2005.

278. Edo Waks, David Fattal, Dirk Englund, Jelena Vuckovic, and Yoshihisa Yamamoto, "Single Photon Generation Using a Single Quantum Dot in a Photonic Crystal Cavity," *Physics of Quantum Electronics 2005*, Snowbird, Utah, Jan. 2005.

279. J. Vuckovic, D. Fattal, D. Englund, E. Waks, C. Santori, G. Solomon, and Y. Yamamoto, "Cavity Enhanced Single Photons From a Quantum Dot," Presented at *SPIE Photonics West*, *Single Photon Devices Minisymposium*, San Jose, CA, Jan. 2005. Published in *Proc. SPIE*, Vol. 5722, pp. 19-29. 2005.

280. Jelena Vuckovic, David Fattal, Edo Waks, Charles Santori, Dirk Englund, Hatice Altug, and Yoshihisa Yamamoto, "Photonic crystal components for solid- state photonicquantum information systems," *European Materials Research Society (EMRS) Annual Meeting, Symposium on Nanophotonic Materials*, Strasbourg, France, May 2004.

281. J. Vuckovic, H. Altug, E. Waks, D. Fattal, Y. Yamamoto, and D. Englund "Photonic Crystal Structures With Large Density of Optical States," *CLEO (Conference on Lasers and Electro-Optics), Special Symposium on Nonlinear Optical Lattices*, San Francisco, CA, May 2004.

282. J. Vuckovic, D. Fattal, C. Santori, G. Solomon, and Y. Yamamoto "Cavity Enhanced Single and Entangled Photons From a Quantum Dot," *QELS (Quantum Electronics and Laser Science) Conference*, Baltimore, MD, June 2003.

283. J. Vuckovic, C. Santori, D. Fattal, M. Pelton, G. Solomon, B. Zhang, J. Plant, and Y. Yamamoto, "Single Photons and Entangled Photons From a Quantum Dot," *Proc. IEEE Int'l Electron Devices Meeting (IEDM 2002)*, San Francisco, CA, pp. 87-90, December 2002.

284. J. Vuckovic, T. Yoshie, M. Loncar, H. Mabuchi, and A. Scherer, "Nano-Scale Optical and Quantum Optical Devices Based on Photonic Crystals," *Proc. IEEE Conf. on Nanotechnology (IEEE-NANO 2002)*, Washington, DC, August 26-28, 2002, pp. 319-321, 2002.

285. J. Vuckovic, A. Scherer, M. Loncar, T. Yoshie, O. Painter, “Applications of Photonic Crystals in Lasers and Light Emitting Diodes," *MRS (Materials Research Society) Spring Meeting*, San Francisco, CA, April 2002.

286. J. Vuckovic, M. Loncar, T. Yoshie, M. Armen, J. Williams, H. Mabuchi and A. Scherer, "High-Q Optical Nanocavities in Planar Photonic Crystals," *Proc. SPIE Photonics West (LASE 2002)*, San Jose, CA, January 2002, Vol. 4629, pp. 190 199, 2002.

287. A. Scherer, A, O. Painter, J. Vuckovic, M. Loncar, T. Yoshie, D. Dapkus, I. Kim, and T. Pearsall, "Photonic Crystal Cavities and Waveguides," *Conf. Digest of Device Research Conference (DRC)*, University of Notre Dame, Notre Dame, Indiana, June 2001, pp. 115-118, 2001.

288. J. Vuckovic, M. Loncar, O. Painter, and A. Scherer, "Surface Plasmon Enhanced LED," *CLEO/QELS (Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science)*, San Francisco, CA, May 2000. *Technical Digest, Post-Conference Edition*, Vol. 40, pp. 41-42, and Vol. 39, pp. 123-124, 2002.

SHORT COURSES AT MAJOR INTERNATIONAL CONFERENCES / SUMMER SCHOOLS

289. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, *CLEO-QELS,* San Jose, CA, May 2021

290. Jelena Vuckovic, *Okinawa School in Physics: Coherent Quantum Dynamics' OIST*

Graduate University, Okinawa, Japan, October 2022

291. Dries Vercruysse, Jelena Vuckovic, 5th Summer School on Silicon Photonics, Ghent University Belgium, June 15-19, 2020
292. Jelena Vuckovic, *NanoQI'19 Summer School on "Nanotechnology meets Quantum Information,"* San Sebastian, Spain, July 22-26, 2019.
293. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, *CLEO-QELS,* San Jose, CA, May 2019
294. Jelena Vuckovic, *Photonics Bootcamp*, Google X, Montain View, January 2019
295. Jelena Vuckovic, "Single-photon generation, detection and manipulation at the nanoscale," special course on Nanoscale Quantum Optics, *International School of Physics "Enrico Fermi"*, Varenna, Italy, July 23-28 (2018)
296. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, *CLEO-QELS*, San Jose, CA, May 2018
297. Jelena Vuckovic, *Okinawa School in Physics: Coherent Quantum Dynamics' OIST Graduate University*, Okinawa, Japan, September 26 - October 5, 2017
298. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2017
299. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, June 2016
300. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2015
301. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2014
302. Jelena Vuckovic, *Ecole de Physique des Houches, Quantum Optics and Nanophotonics Summer School*, Les Houches, France, August 2013.
303. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2013
304. D. Englund, J. Vuckovic, "Silicon Nanophotonics," Frontiers *in Optics/Laser Science, XXIV annual meeting,* Rochester, NY, Oct. 19-23, 2008

INVITED TALKS AT SYMPOSIA, MEETINGS, AND WORKSHOPS

305. Giovanni Scuri, Jelena Vuckovic, *Integrated Quantum Photonics with Ferroelectric Materials,* Loon Lake Lodge, Canada, June 2026
306. Jelena Vuckovic*, 2026 Cal-Bay Quantum School,* Stanford University, Stanford, CA March 23-27, 2026
307. Jelena Vuckovic, *TSMC Dinner Talk, IEDM Conference*, San Francisco, CA, December 2025
308. Jelena Vuckovic, *Viva Quantum*, Ignacio Cirac's 60th Birthday Workshop, Max Planck Institute for Quantum Optics, Munich, Germany, October 2025

309. Jelena Vuckovic, *System-X Fall Conference*, Stanford, CA, October 2025

310. Jelena Vuckovic, *SPRC Symposium,* Stanford, CA September 2025

311. Giovanni Scuri, Jelena Vuckovic, *Rice Workshop on Functional Quantum Defects*, Rice University, Houston, November 2024

312. Giovanni Scuri, Jelena Vuckovic, *Quantum Sensing Summit,* New York City, NY, October 9-11, 2024

313. Eran Lustig, Jelena Vuckovic, *Workshop on Quantum Light Generation, Detection, and Applications*, JILA, the University of Colorado, Boulder, July 2024

314. Jelena Vuckovic, "Trends and Emerging Use Cases in Nano," *Hybrid meeting of the National Academies of Sciences, Engineering, and Medicine's Committee on the Quadrennial Review of the National Nanotechnology Initiative,* June 2024

315. Daniil Lukin, Jelena Vuckovic, *The Shoucheng Zhang Conference for Quantum Science and Engineering,* Stanford, CA, April 2023

316. Giovanni Scuri, Jelena Vuckovic, *Samsung Workshop,* Samsung, Seoul, Korea, March 2023

317. Jelena Vuckovic, *Applied Materials, Open Innovation Workshop*, Santa Clara, October 25, 2022

318. Jelena Vuckovic, *Niels Bohr Centennial Symposium: Frontiers in Quantum Science and Technology,* Copenhagen, Denmark, October 10th-12th, 2022

319. Daniil Lukin, Jelena Vuckovic, *CISCO Quantum Summit*, Oct 11-12 2022

320. Jelena Vuckovic, *Samsung Workshop,* Stanford, CA, Sept. 2022

321. Jelena Vuckovic, *2nd Colloquium on the Physics and Applications of Metasurfaces*, Villa Finaly in Florence, Italy, July 18-22, 2022

322. Jelena Vuckovic, *German Consortium on Quantum memories and Photonic interfaces*, Ulm University, May 5, 2022

323. Jelena Vuckovic, *SystemX Fall Symposium,* Stanford, CA, Nov. 2021 [plenary talk]

324. Daniil Lukin, Jelena Vuckovic, *2021 NNCI Etch Symposium*, UPenn, October 2021

325. Jelena Vuckovic, *ARO workshop on "Exploring Novel 3D Nano-Assembly Processes for Photonics",* Caltech, September 2021

326. Jelena Vuckovic, *Summer School on "Wave propagation and control in complex media: From order to disorder,"* Cargèse, Corsica, France, June 28-30, 2021

327. Jelena Vuckovic, *NSF NNCI/quantum workshop*, April 12-16 2021

328. Jelena Vuckovic, *MPSD Workshop - Light matter hybrids: strong light matter phenomena and cavity-engineering,* Max Planck Institute for the Structure and Dynamics of Matter, Germany, 2021

329. Jelena Vuckovic, *NSF Workshop on The Future of Semiconductors and Beyond*, Feb. 2021

330. Jelena Vuckovic, *Quantum Leap Challenge Institute on Hybrid Quantum Architectures and Networks,* University of Illinois Urbana-Champaign, Nov. 2020

331. Jelena Vuckovic, *16th Annual Spring Symposium of the IEEE SFBA Nanotechnology Council, "Quantum Computing: Nano based Devices, Challenges and Applications*," November 2020

332. Jelena Vuckovic, *Army Science Planning and Strategy Meetings (ASPSMs),* Army Research Laboratory, Nov. 2020

333. Jelena Vuckovic, *Workshop on Machine Learning and Optical Systems*, Boston Chapter of IEEE Photonics Society, Oct. 2020

334. Jelena Vuckovic, *IBM Quantum Summit*, September 15-17, 2020

335. Jelena Vuckovic, *Virtual Workshop on Quantum-Enabling Laser Technologies (QELT),* Quantum Economic Development Consortium (QED-C), September 2020

336. Jelena Vuckovic, *Optical Society of America Incubator Workshop on Flat Optics: Recent Advances and Future Opportunities,* Washington DC, February 2020

337. Jelena Vuckovic, *Stanford Photonics Research Center (SPRC) Workshop on Novel Optics & Photonics Materials for New and Existing High-Volume Applications*, January 15, 2020

338. Jelena Vuckovic, *Quantum Foundry Workshop*, U. Chicago and Argonne National Lab, Discovery Partners Institute, Jan 2020

339. Jelena Vuckovic, *EU-US-Japan International Symposium on Quantum Technology (ISQT),* Kyoto, Japan, December 16-17, 2019

340. Logan Su, Jelena Vuckovic, *Workshop on Quantum and Topological Nanophotonics (QTN-2019),* NTU, Singapore, December 12-14, 2019

341. Jelena Vuckovic, *Symposium on 125 Years of Stanford Electrical Engineering*, Stanford University, Nov. 13, 2019

342. Jelena Vuckovic, *AIM Photonics Members Meeting*, Cadence Design Systems, Inc., San Jose, CA, Oct. 2019

343. Jelena Vuckovic, *NSF convergence workshop on quantum simulators,* National Science Foundation, Arlington, VA, Sept. 2019

344. Kiyoul Yang, Jelena Vuckovic, 1st Special Symposium on Silicon Photonic of the Future (SSPhF 2019), Silverado Resort and Spa, Napa, California, June 17th – 19th, 2019

345. Jinhie Skarda, Jelena Vuckovic, *2nd North American Workshop on Silicon Photonics for High Performance Computing (SPHPC Workshop)*, Estes Park, Rocky Mountains, CO, May 29-30, 2019

346. Jelena Vuckovic, *Symposium on "Diamond Photonics - Physics, Technologies and Applications"*, EPFL, Lausanne, Switzerland, May 19th- 22nd, 2019

347. Jelena Vuckovic, *System-X Spring Workshop,* Stanford University, May 2019

348. Jelena Vuckovic, *Electronic Materials Symposium*, Stanford University, May 10th 2019

349. Jelena Vuckovic, "Whats Next in Integrated Optics – Hot Topics at CLEO: 2019," *CLEO-QELS,* San Jose, CA, May 2019

350. Jelena Vuckovic, Workshop on "Will quantum computing actually work?!" *CLEO*, San Jose, May 2019

351. Jelena Vuckovic, *ARO workshop on attojoule photonics/optoelectronics, Stanford,* Feb. 28-March 1, 2019

352. Jelena Vuckovic, *Workshop on Emerging Directions and Opportunities in Quantum Science, Kavli Institute for Theoretical Physics (KITP)*, Santa Barbara, Feb 22--24, 2019

353. Jelena Vuckovic, *Photonics for Quantum (PfQ) Workshop,* Rochester Institute of Technology, Rochester, NY, January 23-25, 2019

354. Jelena Vuckovic, *Quantum Physics of the Universe Summit (POTUS),* Caltech-Google, January 12-14, 2019

355. Jelena Vuckovic, *Workshop on Advanced Data Center Architectures and Technologies,* Stanford*,* Dec. 2018

356. Marina Radulaski, Jelena Vuckovic, *Workshop on SiC quantum devices*, Royal Society, London, UK, Nov. 2018

357. Jelena Vuckovic, *System-X Fall Conference,* Stanford University, Nov. 2018

358. Jelena Vuckovic, *System-X Spring Conference,* Stanford University, May 2018

359. Shuo Sun, Jelena Vuckovic, *Annual Workshop for the Advanced Light Source Users* Lawrence Berkeley National Laboratory, Berkeley, CA, Oct. 2018

360. Jelena Vuckovic, *Second Meeting of the National Academies AMO2020 Decadal Survey Committee*, Washington, DC on September 19-20, 2018.

361. Jelena Vuckovic, *Industrial Technology Research Institute (ITRI),* Hsinchu, Taiwan, June 2018

362. Alex Piggott, Jelena Vuckovic, *First North American Workshop on Silicon Photonics for High Performance Computing (SPHPC Workshop)*, Fort Collins, CO, May 17-18 (2018)

363. Jelena Vuckovic, *Symposium on the Latest Achievements in Physics*, on the occasion of the *20 Years of the Foundation Prof. Dr. Marko V. Jaric*, Belgrade, Serbia, March 23-24, 2018

364. Jelena Vuckovic, *BoydFes*t, Stanford, March 2nd, 2018

365. Jelena Vuckovic, *Future of Photonics, US Technology Summit,* Huawei*,* Santa Clara, January 2018

366. Jelena Vuckovic, "Quantum light sources," *Quantum Physics of the Universe Summit (POTUS),* Caltech-SpaceX, January 12-14, 2018

367. Marina Radulaski, Jelena Vuckovic, 5th international workshop on "Engineering of Quantum Emitter properties" *the Institute for Quantum Computing in Waterloo*, Canada, Dec 13-15, 2017

368. Jelena Vuckovic, "Quantum photonic networks," *NSF-Convergence workshop on Quantum Elements of Secure Communication*, Washington, DC, Dec. 3-5, 2017

369. Jelena Vuckovic, *Arbitrary and Reconfigurable Optics SPRC Workshop*, Stanford, November 2017

370. Jelena Vuckovic, *System-X Fall Conference,* Stanford University, Nov. 2017

371. Jelena Vuckovic, *System-X Spring Conference,* Stanford University, May 2017

372. Jelena Vuckovic, *Starshot Lightsail Workshop, Breakthrough Initiative*, Caltech, Pasadena, Oct. 2017

373. Vuckovic group, invited experimental demo at *Sci Foo (Science Foo Camp),* Google/O'Reilly Media, Googleplex, Mountain View, CA, August 2017

374. Jelena Vuckovic, *Single Photon Workshop 2017*, Boulder, Colorado, USA, July 31st - August 4th 2017

375. Jelena Vuckovic, *PRACQSYS 17 (Principles and Applications of Control in Quantum Systems),* University of Washingon, Seattle, July 17-20, 2017

376. Shuo Sun, Jelena Vuckovic, *Optical Society of America Incubator Workshop on Integrated Quantum Photonics with Quantum Dots,* Washington, DC, June 18-20, 2017

377. Jelena Vuckovic, *Workshop on Modern Trends in Solid State Quantum Physics,* Institute of Science and Technology (IST), Austria, June 6-8, 2017

378. Jelena Vuckovic, *System-X Fall Conference,* Stanford University, Nov. 2016

379. Jelena Vuckovic, *System-X Conference, plenary sesion*, Stanford University, May 2016

380. Kai Mueller, Jelena Vuckovic, *Workshop on "Light-matter interactions in low dimensions", Institute for Theoretical Atomic, Molecular, and Optical Physics (ITAMP) at the Harvard-Smithsonian Center for Astrophysics,* Cambridge, MA June 29th-July 1st, 2015

381. Marina Radulaski, Jelena Vuckovic, *First International Symposium on SiC Spintronics*, Vadstena, Sweden, June 15-17 (2015)

382. Jelena Vuckovic, *System-X meeting*, May 2015

383. Jelena Vuckovic, *Stanford University Photonics Retreat*, Pacific Grove, CA, on April 10-12, 2015

384. Jelena Vuckovic, *Kick-off workshop of the European Cooperation in Science and Technology (EU COST) Action MP1403 Nanoscale Quantum Optics*, Belgrade, Serbia, April 2015

385. Tom Babinec, Jelena Vuckovic, *Workshop on Quantum Plasmonics*, Benasque, Spain, March 2015

386. Jelena Vuckovic, "Quantum technologies," *Systems-X kick-off meeting*, Stanford, CA, Nov. 2014

387. Jan Petykiewicz and Jelena Vuckovic, "Design and implementation of nanophotonic circuits for communications and biosensing," *CIS Round Table and Review*, Stanford University, CA, May 2014

388. Jelena Vuckovic, "Coherent control of quantum dots in optical nanocavities," Topical Workshop on *"From atomic to mesoscale: the role of quantum coherence in systems of various complexities," Institute for Theoretical Atomic, Molecular, and Optical Physics (ITAMP),* Cambridge, Massachusetts, USA March 10-12, 2014

389. Jelena Vuckovic, *PRACQSYS 13 (Principles and Applications of Control in Quantum Systems)*, August 20-23, 2013, Monterey, CA

390. Armand Rundquist, Arka Majumdar, Michal Bajcsy, Dirk Englund, Andrei Faraon, Erik D. Kim, and Jelena Vuckovic, "Strong photon–photon and photon–phonon interactions in a coupled quantum dot–photonic crystal nanocavity," *The 11th International Workshop on Nonlinear Optics and Excitation Kinetics in Semiconductors (NOEKS 11),* Stuttgart, Germany, September 23 -27, 2012

391. Jelena Vuckovic, *2012 Karles Invitational Quantum Information Science and Technology Conference*, Naval Research Laboratory, Washinton DC, Aug 27-28, 2012

392. Sonia Buckley, Jelena Vuckovic, "Gallium phosphide photonic crystal cavities for enhancing NV center emission," *Frontiers of Diamondoid Science,* Stanford University, Stanford, CA, June 2012.

393. Gary Shambat, Jelena Vuckovic, *CIS Adcom Meeting*, Stanford University, May 2012

394. Gary Shambat, Jelena Vuckovic, *CMOS Emerging Technologies Meeting*, Whistler, BC, June 2011

395. Jelena Vuckovic, "Ultralow threshold electrically injected nanocavity lasers and modulators," *CIS Roundtable and review meeting*, Stanford, CA, May 2011

396. Erik Kim, Jelena Vuckovic, *Quantum Dot Day*, University of Bristol, Bristol, UK (Jan 10, 2010)

397. Jelena Vuckovic, *EE Centennial at CALTECH,* Caltech, Pasadena, CA, Nov. 5-6, 2010.

398. Jelena Vuckovic, *CeNS Workshop "Nanosciences – Merging Disciplines,"* at the Venice International University (VIU), Italy, Sept. 20-24, 2010

399. Jelena Vuckovic, "Photonic crystal nanocavity lasers," *Micro/Nano Laser session at the IEEE Photonics Society Semiconductor Laser Workshop*, *CLEO/QELS*, San Jose, May, 2010

400. Jelena Vuckovic, "Nanophotonics for optical interconnects and light sources," *Center for Integrated Systems Round Table and Review*, Stanford University, May 18-19, 2010

401. Jelena Vuckovic, *Stanford University Photonics Retreat*, Napa, April 2010

402. Yiyang Gong, Jelena Vuckovic, "Nanophotonic devices for classical and quantum information processing," *NNIN Workshop on "Bridging the gap between theory and experiment: what theoretical approach is most suited to solve real problems in nanotechnology and biology,"* Stanford University, Feb. 2010

403. Jelena Vuckovic, Frontiers in Nanoscale Science and Technology Workshop, Harvard University, Cambridge, MA, May 29-31, 2009

404. Jelena Vuckovic, "Quantum nanophotonics: from optical switching with aJ control pulses at 10GHz speed, to quantum information processing," *CIS Roundtable and review meeting*, Stanford, CA, May 2009

405. Dirk Englund, Jelena Vuckovic, *Nanoscience Winterschool*, St. Anton, Arlberg, Austria, March 1-7, 2009.

406. Andrei Faraon and Jelena Vuckovic, workshop on Optical approaches to Topological Cluster State Computing, National Institute for Informatics (NII), Tokyo, Japan (Dec. 2008)

407. Yiyang Gong and Jelena Vuckovic, "Plasmonic enhancement of emission from silicon nanocrystals," G-COE International Symposium for Young Scientists, Kyoto, Japan, October 2008

408. Andrei Faraon, Jelena Vuckovic, "Strong light-matter interaction between quantum dots and photonic crystal cavities," *International Workshop on Fundamentals of Light-Matter Interaction*, Recife, Brazil, October 20-22, 2008

409. Ilya Fushman, Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," *Quantum Cairns International Workshop*, Palm Cove, Cairns, Australia, June 30-July 3, 2008.

410. Dirk Englund, Jelena Vuckovic, "Classical and quantum information processing with quantum dots in photonic crystals," CIPS Annual Meeting, Nanophotonics Session, MIT, *Cambridge,* MA, May 2008

411. Andrei Faraon, Jelena Vuckovic, "Classical and quantum information processing using photonic crystals," *Annual Meeting of CUDOS (Centre for Ultrahigh-bandwidth Devices for Optical Systems, an ARC Centre of Excellence)*, Sydney, Australia, Feb. 2008.

412. Jelena Vuckovic, Dirk Englund, Andrei Faraon, and Ilya Fushman, "Quantum information processing with quantum dots in photonic crystals," *Stanford Photonics Research Center Annual Meeting*, Stanford University, September 2007

413. Ilya Fushman and Jelena Vuckovic, "Photonic Crystal Cavities for Quantum and Classical Information Processing," *Workshop on Physics of Microresonators*, University of North Carolina, Charlotte, NC, June 6-9, 2007

414. Jelena Vuckovic, "Quantum dot-photonic crystal chips for quantum information processing," *Workshop on Hybrid approaches to scalable quantum information systems*, ITAMP - Harvard, May 24-27 2007.

415. Jelena Vuckovic, "Nanophotonic chips for optical interconnects and quantum communication," *CIS Spring Round Table and Review*, Stanford, May 2007

416. Jelena Vuckovic, "Nanophotonic chips for optical interconnects and quantum communication," French-Californian Workshop on Nanophotonics, Stanford March 19th

417. Jelena Vuckovic, "Photonic crystal chips for classical and quantum information processing," *Stanford-NEC Day*, Stanford University, Feb. 16 2007.

418. Hatice Altug and Jelena Vuckovic, "Photonic crystal devices for nano- and bio-photonics," *NNIN review*, U. of Texas in Austin, Feb. 2006.

419. Jelena Vuckovic, "Photonic Crystal Devices for Optical Interconnects," *MARCO Interconnect Focus Center (IFC) Workshop*, Stanford University, Stanford, CA March 2006.

420. Jelena Vuckovic, "Photonic crystal devices for nanoscale and quantum photonics," *NNIN CIS Round Table and Review Meeting*, Stanford University, Stanford, CA, May 10-11 2005.

421. Jelena Vuckovic, " Photonic crystal devices for quantum and nanoscale photonics," *DARPA Workshop on Frontiers in Quantum Device Engineering*, Los Angeles, CA, Jan. 18-19 2005.

422. Jelena Vuckovic, "Photonic Crystal Devices for Nanophotonics and Quantum Information Processing," *Joint US-Japan Workshop on "Nanophotonics: Beyond the limit of optical technology" (NSF-MEXT Joint Symposium and Public Lecture)*, Tokyo, Japan, October 2004.

423. Jelena Vuckovic, "MURI Center for Photonic Quantum Information Systems," *Advanced Research and Development Activity (ARDA)/Intelligence Technology Innovation Center (ITIC) Quantum Cryptography Research Conference* McLean, VA, Aug.31-Sept. 1, 2004.

424. Jelena Vuckovic, "Photonic crystal devices for nanophotonics and quantum information processing," *Workshop on Mesoscopic Physics, Quantum Optics, and Quantum Information, Institute for Theoretical Atomic and Molecular Physics*, Harvard University, May 2004.

425. Jelena Vuckovic, "Quantum optical devices based on quantum dots in photonic crystals," *International Symposium on Quantum Entanglement*, Stanford University, Stanford, CA, December 2003.

426. Jelena Vuckovic, "Quantum optical devices based on quantum dots in microcavities," *Quantum Enabled Science and Technology (QUEST) Workshop*, Santa Fe, NM, August 2003.

427. Jelena Vuckovic, "Quantum information applications of microcavities," *NSF DARPA Photonics Technology Access Program (PTAP) Optical Microresonators Workshop*, San Diego, CA July 2003.

428. Jelena Vuckovic, "Photonic crystal-based optical and quantum optical devices," *Symposium of the Center for Fundamental Materials Research*, Michigan State University, East Lansing, MI, March 2003.

429. Jelena Vuckovic, "Paradigm shifts in devices for optoelectronics," *CIS Autumn Roundtables and advisory committee meetings*, Stanford University, Stanford, CA, November 2002.

430. Jelena Vuckovic, "Optical and quantum optical devices in photonic crystals: from nanocavities to single-photon sources," *Stanford Photonics Research Center (SPRC) Annual Meeting*, Stanford University, Stanford, CA, September 2002.

431. Jelena Vuckovic, "Single photons and entangled photons from a quantum dot microcavity," *International Symposium on Quantum Entanglement*, College de France, Paris, France, June 2002.

432. Jelena Vuckovic, "Photonic bandgap materials," *CNOM (Center for Nonlinear Optical Materials) Annual Meeting*, Stanford University, Stanford, CA, September 2000.

INVITED COLLOQUIA AND SEMINARS

433. Jelena Vuckovic, *Purdue ECE Distinguished Lecture Series, September 2026*

434. *J*elena Vuckovic, *University of Toronto, Photonics Seminar Series*, August 2026

435. Jelena Vuckovic, *Defense Basic Research Exchange Forum (DBREF) Webinar Series*, 2026

436. Jelena Vuckovic, *AMD Seminar*, April 2026

437. Jelena Vuckovic*, CREOL Colloqium,* University of Central Florida, April 2026

438. Jelena Vuckovic, *University of Illinois at Urbana Champaign, Distinguished Colloquium,* April 2026

439. Jelena Vuckovic, *Northwestern Distinguished Seminar Series, April 2026*

440. Jelena Vuckovic, *University of Michigan, ECE Distinguished Seminar, April 2026*

441. Jelena Vuckovic, University of Maryland, Joint Quantum Institute (JQI) Seminar, March 2026

442. Jelena Vuckovic, *IQST Colloquium*, University of Calgary, October 2025

443. Jelena Vuckovic, *Annual Quantum Public Lecture*, the Institute for Quantum Science and Technology, the University of Calgary, October 2025

444. Jelena Vuckovic, *the ZEISS Colloquium Innovation Talk*, Zeiss, September 2025

445. Jelena Vuckovic, *Marvell Semiconductors*, June 2025

446. Jelena Vuckovic, *Physics Today Webinar,* June 2025

447. Jelena Vuckovic, *Laser Focus World Webinar*, May 2025

448. Jelena Vuckovic, *SAIT, Samsung,* Seoul, South Korea, March 2025

449. Jelena Vuckovic, *Quantum Information Science and Engineering Seminar,* University of Washington, Seattle, March 2025

450. Jelena Vuckovic, *Quantum Center Colloquium*, ETH Zurich, Sept. 2024

451. Jelena Vuckovic, Quantum Colloquium, *Princeton University*, Princeton, NJ, September 2024

452. Jelena Vuckovic, *SAIT, Samsung*, March 2024

453. Jelena Vuckovic, *University of Queensland Colloquium*, Brisbane, Australia, Nov. 2023

454. Jelena Vuckovic, *University of Sydney, IPOS Seminar*, Sydney, Australia, Nov. 2023

455. Jelena Vuckovic, *University of Technology Sydney Colloquium*, Sydney, Australia, Nov. 2023

456. Jelena Vuckovic, *Distinguished Lecture, Munushian Lecturer Series*, University of Southern California, Los Angeles, November 2023

457. Jelena Vuckovic, *Max Planck Institute for Quantum Optics*, Munich, Germany, October 2023

458. Jelena Vuckovic, *Distinguished Speaker , UC Davis ECE* , February 2023

459. Jelena Vuckovic, *Institute of Photonics and Quantum Sciences (IPAQS) Seminar, Heriot-Watt University*, Edinburgh, Scotland, UK, February 2023

460. Jelena Vuckovic, *Third International Lecture Series on Nanophotonics,* Faculty of Physics/Ludwig-Maximilians University, Munich, November 2022

461. Jelena Vuckovic, *Quantum Information Science and Engineering (iQuISE) Seminar,* MIT, November 2022

462. Jelena Vuckovic, *Harvard SEAS Seminar*, Harvard, September 2022

463. Jelena Vuckovic, *Distinguished Quantum Colloquium, University of Chicago*, May 2022

464. Jelena Vuckovic, *Cavendish Physical Society Lecture, Cambridge University,* UK, March 2022

465. Jelena Vuckovic, *Tech Klatch, Corning Inc,* March 2022

466. Jelena Vuckovic, *Institute of Optical Science (iOS), Ohio State University*, December 2021

467. Jelena Vuckovic, *University of Colorado Boulder Quantum Center (CUbit) Seminar,* CU Bounder, JILA & NIST, December 2021

468. Jelena Vuckovic, *LASSP/AEP seminar*, Cornell University, November 2021

469. Jelena Vuckovic, *Physics Colloquium,* University of Toronto, Canada, October 2021

470. Jelena Vuckovic*, Optics Colloquium, University of Rochester*, October 2021

471. Jelena Vuckovic, Department of Physics and Astronomy Colloquium, *University of New Mexico, Albuquerque*, New Mexico, September 2021

472. Jelena Vuckovic, *USA-Australia Transpacific Colloquium*, Monash University & ARC, August 2021

473. Jelena Vuckovic, *Ginzton Optics and Quantum Electronics* (AP483) Seminar, Stanford, May 2021

474. Jelena Vuckovic, *Stanford-Yale Faculty Speaker Series, Stanford Quantum Computing Association,* May 2021

475. Jelena Vuckovic, *EPFL Physics Institute Seminar*, EPFL, April 2021

476. Jelena Vuckovic, *Physics Colloquium*, MIT, April 2021

477. Jelena Vuckovic, *Facebook Reality Labs*, Tech Talk, March 2021

478. Jelena Vuckovic, *Max Planck Lecture on Non-equilibrium Quantum Phenomena, Max Planck Institute for the Structure and Dynamics of Matter*, Hamburg, Germany, Feb. 2021

479. Jelena Vuckovic, *Berkeley's Nanoscience and Engineering (NSE) seminar series,* Jan. 2021

480. Jelena Vuckovic, *College of Optical Sciences Colloquium, University of Arizona,* January 2021

481. Jelena Vuckovic, *ACS Photonics Global Webinar*, November 2020

482. Jelena Vuckovic, *Virtual AMO Seminars (VAMOS),* Oct. 2020

483. Jelena Vuckovic, *EE100 Seminar, Stanford*, Oct. 2020

484. Jelena Vuckovic, *Physics Research at Stanford (Phys290 seminar)*, October 2020

485. Jelena Vuckovic, *IQUIST seminar, University of Illinois at Urbana-Champaign,* October 2020

486. Jelena Vuckovic, Physics Undergraduate Research Seminar, *Stanford University*, July 2020

487. Jelena Vuckovic, *Broadcom*, May 2020

488. Jelena Vuckovic, *MIT RLE's Optics and Quantum Electronics Seminar,* April 2020

489. Jelena Vuckovic, *ECE Distinguished Seminar*, Northwestern University, November 2019

490. Jelena Vuckovic, *Distinguished Lecture Series, Molecular Foundry, Lawrence Berkeley National Laboratory (LBNL)*, Berkeley, CA, May 2019

491. Jelena Vuckovic, *JQI (Joint Quantum Institute) Seminar,* University of Maryland, May 2019

492. Jelena Vuckovic, *LMU-TUM Physics Colloquium*, Ludwig Maximilian University of Munich, and Technical University of Munich, Munich, Germany, April 2019

493. Jelena Vuckovic, *QuTech Colloquium,* Delft, Netherlands, April 2019

494. Jelena Vuckovic, *IQST Seminar*, *University of Stuttgart,* April 2019

495. Jelena Vuckovic, *COQUS Colloquium*, University of Vienna, Austria, April 2019

496. Jelena Vuckovic, *Max Planck Institute for Quantum Optics Colloquium, Munich*, Germany, March 2019

497. Jelena Vuckovic, *Fellows' Lunch*, Technical University of Munich – Institute for Advanced Study, Munich, Germany, March 2019

498. Jelena Vuckovic, *Apple*, Cupertino, CA, Feb. 2019

499. Jelena Vuckovic, *Joint Quantum Seminar,* Harvard University, January 2019

500. Jelena Vuckovic, *SLAC Colloquium*, SLAC, Stanford, January 2019

501. Jelena Vuckovic, *Corning Research*, Sunnivale, September 2018

502. Jelena Vuckovic, *Palo Alto Research Center (PARC)*, May 2018

503. Jelena Vuckovic, *Tech Talk, Google X*, April 2018

504. Jelena Vuckovic, *Max Planck Institute for Quantum Optics, Munich*, Germany, March 2018

505. Jelena Vuckovic, *PayPal Quantum Computing Series*, February 2018

506. Jelena Vuckovic, *Samsung Silicon Valley Speaker Series*, Samsung, San Jose, February 2018

507. Jelena Vuckovic, *Solid State Devices Seminar Series, UC Berkeley*, October 2017

508. Jelena Vuckovic, *Tech Talk, Google X*, Palo Alto, October 2017

509. Jelena Vuckovic, a short talk on "Quantum photonic technologies," *Stanford Physics/Applied Physics Colloquium* (Sept. 2017)

510. Jelena Vuckovic, *Schottky Seminar, Technical University of Munich*, June 2017

511. Jelena Vuckovic, *Caltech Materials Research Lecture seminar series,* Caltech*,* Pasadena, CA, Feb. 22nd, 2017

512. Jelena Vuckovic, *Caltech Silicon Valley Alumni Luncheon*, Palo Alto, CA, Jan. 2017

513. Jelena Vuckovic, *Stanford Materials Science Colloquium*, Stanford, CA, Nov. 2016

514. Jelena Vuckovic, *Joint ITAMP/HQOC Seminar (Institute for Theoretical Atomic Physics/ Harvard Quantum Optics Center)*, Harvard, Cambridge, MA, Sep. 2016

515. Jelena Vuckovic, "Inverse design and demonstration of nanophotonic devices," *Mentor Graphics*, Fremont, CA, Mar. 2016

516. Jelena Vuckovic, "Inverse design and demonstration of nanophotonic devices," *Global Foundries*, Santa Clara, CA, Aug 2015

517. Jelena Vuckovic, *Physics Colloquium*, *University of California San Diego*, La Jolla, CA, February 2015

518. Jelena Vuckovic, *IEEE Seminar*, *University of Toronto, Canada*, September 2014

519. Jelena Vuckovic, *Physics Colloquium*, *University of Washington, Seattle*, WA, April 2014

520. Jelena Vuckovic, *Institute for Advanced Studies, Technical University Munich*, Germany, March 2014

521. Jelena Vuckovic, *Knowledge at Noon, EE staff seminar*, Stanford, July 2013

522. Jelena Vuckovic, *Seminar at the University of Nis*, Serbia, May 2013

523. Jelena Vuckovic, *Colloquium at the University of Belgrade*, Serbia, May 2013

524. Jelena Vuckovic, *Seminar at Institute for Physics*, *Humboldt University,* Berlin, Germany, April 2013

525. Jelena Vuckovic, *Alexander Von Humboldt Lecture*, *Technical University of Berlin,* Berlin, Germany, April 2013

526. Jelena Vuckovic, *Neils Bohr Institute Seminar*, Coppenhagen, Denmark May 2013

527. Jelena Vuckovic, *Schottky Seminar*, Technical University Munich, Germany, April 2013

528. Jelena Vuckovic, "Optical nanocavities with quantum dots: from nano-lasers to bio-probes," *Optics and Quantum Electronics Seminar, MIT*, March 2013

529. Jelena Vuckovic, "Quantum dots in optical nanocavities: from cavity QED to applications," *Physics Colloquim, UC Berkeley*, Oct. 2012

530. Jelena Vuckovic, "Nonlinear optics at the single photon level in optical nanocavities," *Optics and Quantum Electronics Seminar, Ginzton Lab,* Stanford University, Nov. 2011

531. Jelena Vuckovic, " Quantum dots in optical nanocavities: from cavity QED to device applications," *MIT Physics Colloquium*, Nov. 2011

532. Jelena Vuckovic, *IFC e-seminar*, Nov. 2011.

533. Jelena Vuckovic, " Quantum dots in optical nanocavities: from cavity QED to device applications," *Humboldt University,* Berlin, Germany, May 2011

534. Jelena Vuckovic, " Quantum dots in optical nanocavities: from cavity QED to device applications," *Institute Colloquium, Max Planck Institute for Quantum Optics (MPQ)*, Munich-Garching, Germany, May 2011

535. Jelena Vuckovic,"Quantum dots in optical nanocavities: from cavity QED to device applications," *Physics Colloquium*, *Stanford University*, Stanford, CA, Feb. 15, 2011

536. Jelena Vuckovic, "Quantum dots in nanocavities: from cavity QED to optical switches" *U.C. Berkeley Nanoscale Science and Engineering (NSE) seminars*, Berkeley, October 2010

537. Jelena Vuckovic, *MARCO IFC e-seminar*, May 2010.

538. Jelena Vuckovic, "Quantum dots in photonic crystals for classical and quantum information processing," *U.C. Berkeley*, *EECS Department*, Photonics and plasmonics seminar, April 2010.

539. Jesse Lu, Jelena Vuckovic, "Inverse design of nanophotonics structures using complementary convex optimization," *U.C. Berkeley*, *EECS Department*, Photonics and plasmonics seminar, March 2010.

540. Jelena Vuckovic, *Caltech*, *Materials Research Lectures (MRL)*, March 2010

541. Jelena Vuckovic, Physics Colloquium, *Harvard University*, February 2010.

542. Jelena Vuckovic, " Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," MIT, *Optics and Quantum Electronics Seminar*, Nov. 2008

543. Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," *Harvard – MIT Center for Ultracold Atoms Talk Series*, November 2008

544. Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," Stanford University, *Ginzton Lab Seminar*, April 2008

545. Jelena Vuckovic, " Photonic crystal devices for classical and quantum information processing," Columbia University*, Department of Physics Colloquium,* November 2006.

546. Ilya Fushman and Jelena Vuckovic, "Quantum information processing with quantum dots in photonic crystals," UC Berkeley*, Quantum Computation Seminar*, April 2006.

547. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," University of Connecticut, Department of Physics, *Hascoe Lecture*, April. 2006.

548. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," Harvard University, *Engineering and Applied Science Seminar Series*, March 2006.

549. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," University of Toronto, *Optics and Quantum Optics Seminar*, March 2006.

550. Jelena Vuckovic, "Nanoscale and quantum photonic devices," Stanford University, *Electrical Engineering Graduate Seminar*, February 2006.

551. Jelena Vuckovic, "Generation and manipulation of classical and nonclassical light using photonic crystals," University of California Santa Barbara, *Materials Colloquium*, October 2005.

552. Jelena Vuckovic, "Generation and manipulation of classical and nonclassical light using photonic crystals," Caltech, *Joint EE-AP seminar*, May 2005.

553. Jelena Vuckovic, "Photonic crystal devices for quantum and nanoscale photonics," UC Berkeley, *AMO Seminar*, December 2004.

554. Jelena Vuckovic, "Photonic crystal devices for nanophotonics and quantum information processing," Harvard University, *Joint Atomic Physics Colloquium*, March 2004.

555. Jelena Vuckovic, "Photonic crystals and their applications in optoelectronics and quantum optics," Stanford University, Materials Science and Engineering Department, May 2003.

556. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Palo Alto Research Center (PARC), February 2003.

557. Jelena Vuckovic, "Quantum optical devices based on photonic crystals," Los Alamos National Laboratory, *Quantum Lunch Seminar Series*, January 2003.

558. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Princeton University, Electrical Engineering Department, April 2002.

559. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Stanford University, Electrical Engineering Department, April 2002.

560. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," California Institute of Technology (Caltech), Applied Physics Department, April 2002.

561. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Massachusetts Institute of Technology (MIT), Electrical Engineering Department, March 2002.

562. Jelena Vuckovic, "Photonic crystals," Stanford University, Applied Physics Department, November 2001.

563. Jelena Vuckovic, "Photonic crystals," University of California San Diego, Electrical Engineering Department, April 2001.

REFEREED CONFERENCE PUBLICATIONS

1. "Optical quadrature nonreciprocity," Jamison Sloan, Eran Lustig, Louise Schul, Trung Kien Le, Melissa Guidry, Daniil Lukin, Shanhui Fan, Jelena Vuckovic, *CLEO*, Charleston, NC, May 2026
2. "A solid-state platform for multiqubit cavity quantum electrodynamics, Guido van de Stolpe, Roman Dimov, Trung Kien Le, Giovanni Scuri, Dominic Catanzaro, Souvik Biswas, Shei Sia Su, Michael Titze, Jawad Ul Hassan and Jelena Vuckovic, *CLEO*, Charleston, NC, May 2026
3. "Quantum sensing of electron beams using solid-state spins," Charles Roques-Carmes, Jakob M. Grzesik, Dominic Catanzaro, Eric I. Rosenthal, Guido L. van de Stolpe, Aviv Karnieli, Giovanni Scuri, Souvik Biswas, Kenneth J. Leedle, Dylan S. Black, Robert L. Byer, Ido Kaminer, R. Joel England, Shanhui Fan, Olav Solgaard, and Jelena Vuckovic, *CLEO*, Charleston, NC, May 2026
4. "Purcell Enhancement of Tin-Vacancy Centers in Thin-Film Diamond Cavities," Hannah C. Kleidermacher, Hope Lee, Abigail J.M. Stein, Hyunseok Oh, Lillian B. Hughes-Wyatt, Casey K. Kim, Luca Basso, Andrew M. Mounce, Yongqiang Wang, Shei S. Su, Michael Titze, Ania C. Bleszynski Jayich, Jelena Vuckovic, *CLEO*, Charleston, NC, May 2026
5. "Thin-film Diamond Photonic Crystal Cavities for the Tin-Vacancy Center," Hope Lee, Hannah C. Kleidermacher, Abigail J.M. Stein, Hyunseok Oh, Lillian Hughes, Kyuhyun Kim, Mohamadali Malakoutian, Luca Basso, Andy Mounce, Yongqiang Wang, Shei S. Shu, Michael Titze, Srabanti Chowdhury, Ania B. Jayich, Jelena Vuckovic, *CLEO*, Charleston, NC, May 2026
6. "Integration of diamond color centers with nanophotonic cavities," Abigail Stein, Sydney Mason, Hope Lee, Hannah Kleidermacher, Giovanni Scuri, Hyunseok Oh, Lillian Hughes, Casey Kim, Yongquiang Wang, Luca Basso, Andy Mounce, Shei Su, Michael Titze, Ania Jayich, Jelena Vuckovic, *MRS Spring Meeting,* Honolulu, Hawaii, April 2026
7. "Electro-Optic Tunability of 4H Silicon Carbide Photonics for Quantum Applications," Dominic Catanzaro, Giovanni Scuri, Kien Le, Guido van de Stolpe, Roman Dimov, Souvik Biswas, Misagh Ghezellou, Hiroshi Abe, Takeshi Ohshima, Jawad Ul-Hassan, and Jelena Vuckovic, *MRS Spring Meeting,* Honolulu, Hawaii, April 2026
8. "Characterization of Quasi-Single-Domain In-Plane Ferroelectricity in (110) $BaTiO_3$ Films Arising from Anisotropic Epitaxial Strain," Kevin Crust, Sungjun Eun, Danilo Puggioni, Michael Waters, James M. Rondinelli, Jelena Vučković,and Harold Y. Hwang, *MRS Spring Meeting,* Honolulu, Hawaii, April 2026
9. "An Integrated Metasurface Platform for Programmable Beam Emission at Visible Wavelengths," Sydney Mason, Geun Ho Ahn, Mark Brongersma, Jelena Vučković, *MRS Spring Meeting,* Honolulu, Hawaii, April 2026
10. "Generative Neural Networks for Kerr Combs," Janet Zhong, Eran Lustig, Louise Schul, Jamison Sloan, Jelena Vuckovic, Shanhui Fan, *Neurips, ML4PS*, 2026

11. "Engineering bosonic Hamiltonian in an optical Kerr resonator," Trung Kien Le, Eran Lustig, Louise Schul. Jamison Sloan, Shanhui Fan, and Jelena Vuckovic, *Gordon Conference on Quantum Control*, Salve Regina University, Rhode Island, August 3-8, 2025
12. "Focused Ion Beam Placement of V2 Centers in SiC for Scalable Quantum Photonics," Dominic Catanzaro, Kien Le, Roman Dimov, Guido van de Stolpe, Giovanni Scuri, Souvik Biswas, Shei Sia Su, Michael Titze, Jawad Ul-Hassan, Ed Bielejec, Jelena Vuckovic, *Gordon Conference on Quantum Control*, Salve Regina University, Rhode Island, August 3-8, 2025
13. "Integration of diamond spin qubits with guided mode resonance metasurface cavities," Abigail Stein, Sydney Mason, Giovanni Scuri, Sauviz Alaei, Yuri Suzuki, Jelena Vuckovic, *Gordon Conference on Quantum Control*, Salve Regina University, Rhode Island, August 3-8, 2025
14. "In-situ Generation of Photon-Memory Entanglement Using an Integrated Rare-Earth Photonic Quantum Memory," Alexander Kolar1, Ian Chin, Conner Fong, Daniil Lukin, Melissa Guidry, Milan Palei, Allen Zang, Yuzhou Chai, Jelena Vuckovic, Tian Zhong, *CLEO*, Long Beach, May 2025
15. "Mid-Infrared Microcomb Generation in Silicon-Carbide Microresonators," Quentin Bournet, Stephan Amann, Lucas Deniel, Daniil M. Lukin, Melissa A. Guidry, Joshua Yang, Jelena Vučković, Theodor W. Hänsch, Nathalie Picqué, *CLEO*, Long Beach, May 2025
16. "Cavity Quantum Electrodynamics in Finite-Bandwidth Squeezed Reservoir, Trung Kien Le, Daniil Lukin, Charles Roques-Carmes, Aviv Karnieli, Melissa A. Guidry, Eran Lustig, Shanhui Fan, and Jelena Vuckovic, *CLEO*, Long Beach, May 2025
17. "Strong intracavity squeezing in a Kerr resonator," Trung Kien Le, Eran Lustig, Louise Schul, Melissa A. Guidry, Daniil M. Lukin, Shanhui Fan, and Jelena Vuckovic, *CLEO*, Long Beach, May 2025
18. "A general framework for interactions between electron beams and quantum optical systems," Jakob Grzesik, Charles Roques-Carmes, Aviv Karnieli, Dylan S. Black, Dominic Catanzaro, Olav Solgaard, Shanhui Fan, and Jelena Vuckovic, *CLEO*, Long Beach, May 2025
19. "Emerging quadrature lattices of Kerr combs," Eran Lustig, Melissa Guidry, Daniil Lukin, Shanhui Fan, Jelena Vučković, *CLEO*, Long Beach, May 2025
20. "Continuous-variable quantum information processing in real and synthetic dimensions with self-configuring optics," Aviv Karnieli, Charles Roques-Carmes, Paul-Alexis Mor, Eran Lustig, Jamison Sloan, Jelena Vučković, David A. B. Miller, and Shanhui Fan, *CLEO*, Long Beach, May 2025
21. "Narrowband wavelength division multiplexing enabled by co-optimization with distributed Bragg gratings," Sydney Mason, Geun Ho Ahn, Sungjun Eun, and Jelena Vučković, *CLEO*, Long Beach, May 2025
22. "Enhanced cryogenic piezoelectric and electrooptic nonlinearities with materials engineering," Chris Anderson, Giovanni Scuri, Aaron Chan, Lu Li, Jelena Vuckovic, *MRS Spring Meeting*, Seattle, WA, April 2025
23. **"**Multi-emitter cavity quantum electrodynamics with silicon carbide spin qubits," Giovanni Scuri, Dominic Catanzaro, Souvik Biswas, Trung Kien Le, Daniil M. Lukin, Bennet Windt,

Miguel Bello, Eran Lustig, Melissa A. Guidry, Joshua Yang, Hiroshi Abe, Takeshi Ohshima, Misagh Ghezellou, Jawad Ul-Hassan, Shei S. Su, Ed S. Bielejec, Michael Titze, and Jelena Vuckovic, *APS March Meeting,* Anaheim, CA, March 2025

24. "Electrical Control of Silicon Carbide Cavity QED Systems," Dominic Catanzaro, Kien Le, Souvik Biswas, Giovanni Scuri, Jelena Vuckovic, *APS March Meeting,* Anaheim, CA, March 2025
25. "Inverse-designed cavity QED with tin-vacancy centers in diamond," Jean-Michel Borit, Hope Lee, Abigail Stein, Hannah Kleidermacher, Jakob Grzesik, Jelena Vučković, *APS March Meeting,* Anaheim, CA, March 2025
26. "Extreme cryogenic piezoelectric and electrooptic nonlinearities in strontium titanate," Chris Anderson, Giovanni Scuri, Aaron Chan, Lu Li, Jelena Vuckovic, *APS March Meeting,* Anaheim, CA, March 2025
27. "Gradient-based Quantum Control and Engineering with Adjoint Sensitivity," Trung Kien Le, Jean-Michel Borit, Rahul Trivedi, Joonhee Choi, Jelena Vuckovic, *APS March Meeting,* Anaheim, CA, March 2025
28. "Single-shot readout and weak measurement of a tin-vacancy qubit in diamond," Eric I. Rosenthal, Souvik Biswas, Giovani Scuri, Hope Lee, Abigail Stein, Hannah Kleidermacher, Jakub Grzesik, Joonhee Choi, Christopher P. Anderson, Jelena Vuckovic, *APS March Meeting,* Anaheim, CA, March 2025
29. "Quantum measurement of a solid-state spin qubit in diamond," Souvik Biswas, Jelena Vuckovic, *Quantum West, SPIE Photonics West,* San Francisco, CA, January 2024
30. "Photonic Quadrature Lattices," Eran Lustig, Melissa Guidry, Daniil Lukin, Shanhui Fan, Jelena Vučković, *Quantum Light Generation, Detection, and Applications*, JILA, July 2024
31. "Integrated Control of Silicon Carbide Defect Centers," Dominic Catanzaro, Daniil M. Lukin, Giovanni Scuri, Souvik Biswas, Melissa A. Guidry, Eran Lustig, and Jelena Vuckovic, CECAM 2024, Budapest, Hungary, June 2024
32. "Experimental demonstration of superradiance using inverse designed clockwise, counter-clockwise mode couplers," Andrew Tang, Abhi Saxena, Virat Tara, Geun Ho Ahn, Jelena Vuckovic, Rahul Trivedi, and Arka Majumdar, *CLEO*, Charleston, SC, May 2024
33. "Self-referenced mid-infrared frequency comb using a silicon-carbide nanophotonic waveguide," Bingxin Xu, Lucas Denieli, Melissa A. Guidry, Daniil M. Lukin, Jérémie Pilat, Ki Youl Yang, Joshua Yang, Jelena Vučković, Theodor W. Hänsch, Nathalie Picqué, *CLEO*, Charleston, SC, May 2024
34. "Nonlinear Feedback Comb Dynamics Enabled by Photonic Crystal Microresonators on On-Chip Platform with Passively-Isolated Pump," Jakob Grzesik, Geun Ho Ahn, Alexander D. White, Dominic Catanzaro, Jelena Vuckovic, *CLEO*, Charleston, SC, May 2024
35. "Passive On-Chip Nonlinear Optical Isolators with Built-in Laser Stabilization," Alexander D. White, Geun Ho Ahn, Kasper Van Gasse, Richard Luhtaru, Joel Guo, Theodore J. Morin, Lin. Chang, John E. Bowers, Jelena Vuckovic, *CLEO*, Charleston, SC, May 2024

36. "Multimode squeezed vacuum of Kerr primary combs in optical microresonators," Melissa A. Guidry, Eran Lustig, Daniil M. Lukin, Shanhui Fan, and Jelena Vuckovic, *CLEO*, Charleston, SC, May 2024
37. "Quantum squeezing of edge-states in a nonlinear resonator," Eran Lustig, Melissa Guidry, Daniil Lukin, Shanhui Fan, Jelena Vuckovic, *CLEO*, Charleston, SC, May 2024
38. "Titanium:Sapphire-on-insulator tunable chip-scale laser," J. Yang, K. Van Gasse, D. M. Lukin, M. A. Guidry, G. H. Ahn, A. D. White, J. Vuckovic, *CLEO*, Charleston, SC, May 2024
39. "Strong coupling between a single artificial atom and an integrated silicon carbide resonator," Daniil M. Lukin1, Dominic Catanzaro, Melissa A. Guidry, Eran Lustig, Misagh Ghezellou, Joshua Yang, Hiroshi Abe, Takeshi Ohshima, Jawad Ul-Hassan, Jelena Vuckovic, *CLEO*, Charleston, SC, May 2024
40. "Titanium-sapphire-on-insulator (Ti:SaOI) nanophotonic waveguide amplifier," K. Van Gasse, J. Yang, D. M. Lukin, M. A. Guidry, G. Ahn, A. White, J.Vuckovic, *CLEO*, Charleston, SC, May 2024
41. "An experimental platform to control solid-state spin systems with engineered electron beams," Dominic Catanzaro, Jakob Grzesik, Charles Roques-Carmes, Ken Leedle, Dylan S. Black, Olav Solgaard, Jelena Vuckovic, *CLEO*, Charleston, SC, May 2024
42. "Cavity QED with Tin-Vacancy in Diamond," Hope Lee, Hannah Kleidermacher, Abigail Stein, Jakub Grzesik, Jean-Michel Borit, Daniil Lukin, Dominic Catanzaro, Jelena Vuckovic, *APS March Meeting,* Minneapolis, MN, March 2024
43. "Microwave spin control of a van der Waals solid-state defect ensemble," Souvik Biswas, Giovanni Scuri, Eric Rosenthal, Yakub Masashi Grzesik, Abigail Stein, Reginald Gong, Xingyu Gao, Rafael Basto, Tongcang Li, James Edgar, Chong Zu, Joonhee Choi, Jelena Vuckovic, *APS March Meeting,* Minneapolis, MN, March 2024
44. "Microwave Spin Control of a Tin-Vacancy Qubit in Diamond," Eric I. Rosenthal, Christopher P. Anderson, Hannah Kleidermacher, Abigail Stein, Hope Lee, Jakub Grzesik, Giovani Scuri, Alison E. Rugar, Daniel Riedel, Shahriar Aghaeimeibodi, Geun Ho Ahn, Kasper Van Gasse, Souvik Biswas, Jelena Vuckovic, *APS March Meeting,* Minneapolis, MN, March 2024
45. "Fiber-coupled waveguide probe co-integrated with electrical control as a cryogenic photonic interface," Dominic Catanzaro, Daniil Lukin, Eran Lustig, Melissa Guidry, Jelena Vuckovic, *APS March Meeting,* Minneapolis, MN, March 2024
46. "Microwave photonics with quantum paraelectric materials," Peter Mugaba Noertoft, Eric I. Rosenthal, Giovanni Scuri, Christopher P. Anderson, Jelena Vuckovic, *APS March Meeting,* Minneapolis, MN, March 2024
47. "Inverse designed nanophotonic resonators for cavity QED in diamond," Jean-Michel Borit, Hope Lee, Jakob Grzesik, Hannah Kleidermacher, Jelena Vuckovic, *APS March Meeting,* Minneapolis, MN, March 2024
48. " Structured light meets functional nanostructures for encoding and decoding information," Eileen Otte, Nicholas A. Guesken, Alexander D. White, Hyounghan Kwon, Hossein

Taghinejad, William A. Jarret, J. Vučković, Mark L. Brongersma, *SPIE Photonics West*, San Francisco, CA, Feb. 2024

49. "Comb Dynamics in Photonic Crystal Microresonators with Built-in Nonlinear Optical Isolator on Single-layer Deposited Silicon Nitride, Yakub Grzesik, Geun Ho Ahn, Jelena Vuckovic, *SPIE Photonics West*, San Francisco, CA, Feb. 2024
50. "Frequency-comb spectral broadening in 4H-silicon-carbide nanophotonic waveguides," Lucas Deniel, Melissa Guidry, Daniil Lukin, Ki Youl Yang, Joshua Yang, Jelena Vuckovic, Theodor Haensch, Nathalie Picque, *EOSAM 2023, Dijon, France*, July 2023
51. "Supercontinuum Spanning 2.8 Octaves in 4H- Silicon Carbide Waveguides," Lucas Deniel, Melissa Guidry, Daniil Lukin, Ki Youl Yang, Joshua Yang, Jelena Vuckovic, Theodor Haensch, Nathalie Picque, *CLEO Europe,* Munich, Germany, June 2023
52. "Multimode Squeezing in Dissipative Kerr Solitons," Melissa A. Guidry, Daniil M. Lukin, Ki Youl Yang, Jelena Vuckovic, *CLEO Europe,* Munich, Germany, June 2023
53. "Optically-Coherent Color Center Ensembles Coupled to High Finesse Silicon Carbide Microresonators," Daniil M. Lukin, Dominic Catanzaro, Melissa A. Guidry, Misagh Ghezellou, Joshua Yang, Hiroshi Abe, Takeshi Ohshima, Jawad Ul-Hassan, Jelena Vuckovic, *CLEO Europe,* Munich, Germany, June 2023
54. "Silicon nitride electro-optic modulators enabled by heterogeneous integration of barium titanate films," Geun Ho Ahn, Alexander D. White, Kevin Crust, Chris Anderson, Jakob Grzesik, Kasper Van Gasse, Giovanni Scuri, Harold Y. Hwang, Jelena Vuckovic, *CLEO*, San Jose, CA, May 2023
55. "Visible to Mid-infrared Supercontinuum Generation in 4H-Silicon-Carbide Nanophotonic Waveguides," Lucas Deniel, Melissa A. Guidry, Daniil M. Lukin, Ki Youl Yang, Joshua Yang, Jelena Vučković, Theodor W. Hänsch, Nathalie Picqué, *CLEO*, San Jose, CA, May 2023
56. "Cryogenic, fiber coupled waveguide probe cointegrated with electrical control lines," Dominic Catanzaro, Daniil M. Lukin, Eran Lustig, Melissa A. Guidry, Jelena Vuckovic, *CLEO*, San Jose, CA, May 2023
57. "Quantum critical electro-optic materials for photonics," Chris Anderson, Giovanni Scuri, Alex White, Daniil Lukin, Erik Szakiel, Josh Yang, Kasper Van Gasse, Melissa Guidry, Wentao Jiang, Amir Safavi-Naeini, Jelena Vuckovic, *CLEO*, San Jose, CA, May 2023
58. "Heterogeneous integration of SiV Color Centers in Diamond with Lithium Niobate Photonics for Quantum Networks, Hope Lee, Daniel Riedel, Jakob Grzesik, Jason Hermann, Shahriar Aghaeimeibodi, Jean-Michel Borit, Vahid, Ansari, Hybert Stokowski, Luke Qi, Taewon Park, Alex Hwang, Tim McKenna, Patrick McQuade, Haiyu Lu, Zi-Xun Shen, Amir Safavu-Naeini, Jelena Vuckovic, *CLEO*, San Jose, CA, May 2023
59. "Fully Passive On-Chip Nonlinear Continuous Wave Optical Isolators," Alexander D. White, Geun Ho Ahn, Kasper Van Gasse, Jelena Vuckovic, *CLEO*, San Jose, CA, May 2023
60. "Multiemitter cavity quantum electrodynamics in 4H-silicon carbide-on-insulator photonics," Daniil M. Lukin, Melissa A. Guidry, Misagh Ghezellou, Dominic Catanzaro, Joshua Yang,

Hiroshi Abe, Takeshi Ohshima, Jawad Ul-Hassan, Jelena Vuckovic, *CLEO*, San Jose, CA, May 2023

61. "Titanium-sapphire on insulator micro-resonator laser," J. Yang, D. Lukin, M. Guidry, G. Ahn, K. Van Gasse, J. Vuckovic, *CLEO*, San Jose, CA, May 2023
62. "Coherent Spin Control of a Tin Vacancy Center in Diamond," Abigail Stein, Hannah Kleidermacher, Eric Rosenthal, Hope Lee, Jakob Grzesik, Alison E. Rugar, Daniel Riedel, Shahriar Aghaeimeibodi, Geun Ho Ahn, Kasper Van Gasse, Christopher P. Anderson, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2023
63. "Platform independent integration of telluride thin films for high speed on-chip photodetection," Geun Ho Ahn, Alexander D. White, Hyungjin Kim, Naoki Higashitarumizu, Felix M. Mayor, Jason F. Herrmann, Amir H. Safavi-Naeini, Ali Javey, Jelena Vuckovic, *CLEO*, San Jose, CA, May 2023
64. "Inverse design of CMOS-compatible silicon nitride nanophotonic resonators for integrated nonlinear optics systems," G.H. Ahn, A.D. White, and J. Vuckovic, *PECS XIII*, Tokyo, Japan, March 2023
65. "Diamond Microdisk Resonators for Group-IV Color Center Cavity QED," Jakob Grzesik, Daniel Riedel, Hope Lee, Daniil Lukin, Dominic Catanzaro, Eran Lustig, Jean-Michel Borit, Jelena Vučković, *PECS XIII*, Tokyo, Japan, March 2023
66. "Heterogeneous Integration of Group-IV Diamond Color Centers and Thin-Film Lithium Niobate Photonics," Hope Lee, Daniel Riedel, Jason F. Herrmann, Jakob Grzesik, Shahriar Aghaeimeibodi, Jean-Michel Borit, Vahid Ansari, Hubert S. Stokowski, Luke Qi, Taewon Park, Alex Y. Hwang, Timothy P. McKenna, Patrick McQuade, Haiyu Lu, Zhi-Xun Shen, Amir Safavi-Naeini, Jelena Vučković, *PECS XIII*, Tokyo, Japan, March 2023
67. "Passive Nanophotonic Optical Isolators," A.D. White, G.H. Ahn, K. V. Gasse, and J. Vuckovic, *PECS XIII*, Tokyo, Japan, March 2023
68. "Electro-optics with quantum paraelectric materials," Chris Anderson, Giovanni Scuri, Alex White, Daniil Lukin, Erik Szakiel, Josh Yang, Melissa Guidry, Kasper Van Gasse, Wentao Jiang, Amir Safavi-Naeini, Jelena Vuckovic, *MRS Spring Meeting*, San Francisco, CA, 2022
69. "Magnetic Control of Bound Electron Spins with Cavity-bunched Electron Beams," Jakob Grzesik, Dominic Catanzaro, Kenneth Leedle, Dylan Black, Eric Rosenthal, Joel England, Olav Solgaard, Bob Byer, and Jelena Vučković, *APS March Meeting*, Las Vegas, NV, March 2023
70. "Heterogenous Integration of Diamond and Lithium Niobate Nanophotonics for Quantum Networks," Hope Lee, Daniel Riedel and Jason F. Herrmann, Jakob Grzesik, Jean-Michel Borit, Vahid Ansari, Hubert S. Stokowski, Luke Qi, Taewon Park, Alex Y. Hwang, Timothy P. McKenna, Haiyu Lu, Zhi-Xun Shen, Patrick J. McQuade, Nicholas A. Melosh, Amir Safavi-Naeini, Jelena Vučković, *APS March Meeting*, Las Vegas, NV, March 2023
71. "Quantum paraelectric electro-optics," Chris Anderson, Daniil Lukin, Erik Szakiel, Alex White, Giovanni Scuri, Kasper Van Gasse, Melissa Guidry, Josh Yang, Wentao Jiang, Amir Safavi-Naeini, Jelena Vuckovic, *APS March Meeting*, Las Vegas, NV, March 2023

72. “Alligator photonic crystal nanobeam cavities for cavity QED in diamond,” Jean-Michel Borit-Morgan, Daniel Riedel, Hope Lee, Yakub M. Grzesik, Alison E. Rugar, Jelena Vuckovic, *APS March Meeting*, Las Vegas, NV, March 2023
73. “Spin control of a tin vacancy center in diamond,” Eric I. Rosenthal, Abby Stein, Hannah Kleidermacher, Hope Lee, Yakub Grzesik, Alison Rugar, Christopher P. Anderson, Daniel Riedel, Jelena Vuckovic, *APS March Meeting*, Las Vegas, NV, March 2023
74. “Photonic Crystal Resonator Comb based WDM-MDM links utilizing Inverse-Designed Mode-Division Multiplexers,” Chinmay Shirpurkar, Kiyoul Yang, Jizhao Zang, David Carlson, Travis Briles, Joshua Yang, Melissa Guidry, Daniil Lukin, Geun Ho Ahn, Jesse Lu, Scott B. Papp, Jelena Vučković and Peter J. Delfyett, *Optical Fibers Conferences (OFC)*, San Diego, CA, March 2023
75. “Optically-coherent color centers in integrated silicon-carbide-on-insulator photonics,” Daniil M. Lukin, Melissa A. Guidry, Joshua Yang, Misagh Ghezellou, Sattwik Deb Mishra, Hiroshi Abe, Takeshi Ohshima, Jawad Ul-Hassan, Jelena Vuckovic, *Conference on Defects in Solids for Quantum Technologies (DSQT2020)*, Stockholm, Sweden, June 2022
76. “Two-emitter multi-mode cavity quantum electrodynamics using silicon carbide microdisks,” Melissa A. Guidry, Daniil M. Lukin. Joshua Yang, Misagh Ghezellou, Sattwik Deb Mishra, Hiroshi Abe, Takeshi Ohshima, Jawad Ul-Hassan, Jelena Vuckovic, *Conference on Defects in Solids for Quantum Technologies (DSQT2020)*, Stockholm, Sweden, June 2022
77. “Integrated Silicon Carbide Color Centers in Novel Photonic Resonators,” Joshua Yang, Daniil M. Lukin, Melissa A. Guidry, Ki Youl Yang, Jelena Vuckovic, *Conference on Defects in Solids for Quantum Technologies (DSQT2020)*, Stockholm, Sweden, June 2022
78. “Integrated Passive Nonlinear Optical Isolators,” Alexander D. White, Geun Ho Ahn, Jason F. Herrmann, Felix M. Mayor, Kasper Van Gasse, Ki Youl Yang, Amir H. Safavi-Naeini, Jelena Vuckovic, *CLEO*, San Jose, May 2022
79. “Inverse-designed optical phased array with a wide steering angle,” D.Vercruysse, N.V.Sapra, K.Y.Yang, and J.Vuckovic, *CLEO*, San Jose, May 2022
80. “Experimental Demonstration of Boundaries along a Synthetic Frequency Dimension,” Avik Dutt, Luqi Yuan, Ki Youl Yang, Kai Wang, Siddharth Buddhiraju, Jelena Vuckovic, Shanhui Fan, *CLEO*, San Jose, May 2022
81. “Magnetic Control and Entanglement of Electron Spins with Bunched Electron Beams,” Dylan S. Black, Jakob Grzesik, Jelena Vuckovic, Olav Solgaard, *CLEO*, San Jose, May 2022
82. “Inverse Designed Integrated Optical Filters for Optical Transmission Shaping,” Geun Ho Ahn, Rahul Trivedi, Kiyoul Yang, Alexander D. White, Jelena Vuckovic, *CLEO*, San Jose, May 2022
83. “Investigation of resonant excitation and Stark tuning of negatively charged tin vacancy centers in diamond,” Hope Lee, Yakub Grzesik, Daniel Riedel, Alison Rugar, Shahriar Aghaeimeibodi, Constantin Dory, and Jelena Vuckovic, *CLEO*, San Jose, May 2022
84. “All optical switching in a silicon nonlinear Fano resonator,” K. Van Gasse, M. Cotrufo, K.Y. Yang, A. Alu, J. Vuckovic, *CLEO*, San Jose, May 2022

85. "Simulation of large-area metasurfaces with a distributed transition matrix method," Jinhie Skarda, Rahul Trivedi, Logan Su, Diego Ahmad-Stein, Hyounghan Kwon, Seunghoon Han, Shanhui Fan, and Jelena Vuckovic, *CLEO*, San Jose, May 2022
86. "Inverse-Designed Silicon Carbide Nanoresonators ," Joshua Yang, Ki Youl Yang, Melissa A. Guidry, Daniil M. Lukin, Jelena Vuckovic, *CLEO*, San Jose, May 2022
87. "A nanophotonic interface for tin-vacancy centers in diamond," Daniel Riedel, Alison E. Rugar, Shahriar Aghaeimeibodi, Constantin Dory, Haiyu Lu, Patrick J. McQuade, Zhi-Xun Shen, Nicholas A. Melosh, and Jelena Vučković, *CLEO*, San Jose, May 2022
88. "Geometric Four-Wave Mixing Phase-Matchingin Photonic Nanoresonators," S.-P. Yu, K.Y. Yang, J. Yang, J.A. Black, D. Carlson, T. Briles, M.A. Guidry, D.M. Lukin, J. Vuckovic, and S.B. Papp, *CLEO*, San Jose, May 2022
89. "Inverse Design of Multi-Layer Foundry-Fabricated Optical Vortex Beam Emitters," Alexander D. White, Logan Su, Ki Youl Yang, Daniel I. Shahar, Siddharth Ramachandran, Jelena Vuckovic, *CLEO*, San Jose, May 2022
90. "Bright, narrow-linewidth color centers in Silicon Carbide-on-Insulator microresonators," Daniil M. Lukin, Melissa A. Guidry, Joshua Yang, Sattwik Deb Mishra, Misagh Ghezellou, Hiroshi Abe, Takeshi Ohshima, Jawad Ul-Hassan, Jelena Vuckovic, *CLEO*, San Jose, May 2022
91. "Multimode quantum correlations of soliton microcombs in silicon carbide microrings," Melissa A. Guidry, Daniil M. Lukin, Ki Youl Yang, Rahul Trivedi, Jelena Vuckovic, *CLEO*, San Jose, May 2022
92. "Multi-wavelength, multi-mode optical interconnects using soliton microcombs," K.Y.Yang, A.D.White, F.Ashtiani, C.Shirpurkar, S.V.Pericherla, L.Chang, H H.Song, K.Zou, H.Zhou, K.Pang, J. Yang, M. A. Guidry, D. M. Lukin, H. Hao, L. Trask, G.H.Ahn A.Netherton, T.C. Brilles, J. R. Stone, L. Rechtman, J. S. Stone, K. Van Gasse, J.Skarda, L.Su, D.Vercruysse, J.P. W. MacLean, S.Aghaeimeibodi, M. J. Li, D.A.B.Miller, D. Marom, S.B. Papp, A.E.Willner, J.E.Bowers, P. J. Delfyett, F.Aflatouni, and J.Vuckovic, *CLEO*, San Jose, May 2022
93. "80-channel WDM-MDM communication link utilizing a Photonic Crystal Resonator and Inverse-Designed Mode- Division Multiplexers," Chinmay Shirpurkar, Erwan Lucas, Kiyoul Yang, Jizhao Zang, Su-Peng Yu, Joshua Yang, Melissa Guidry, Daniil Lukin, Srinivas Varma, Lawrence Trask, Jelena Vuckovic, Scott B. Papp, and Peter Delfyett, *CLEO*, San Jose, May 2022
94. "Towards Inverse Design Nonlinear Photonics in 4H-SiC," Joshua Yang, Ki Youl Yang, Melissa A. Guidry, Daniil M. Lukin, Jelena Vuckovic, *APS March Meeting,* Chicago, IL, March 2022
95. "Achieving high cooperativity between a semiconductor defect center and a superconducting resonator," Eric I. Rosenthal, Gitanjali Mutani, Christopher P. Anderson, Sattwib Deb Mishra, Wentao Jiang, Felix Mayor, Sultan Malik, Amir H. Safavi-Naeini, Jelena Vuckovic, *APS March Meeting,* Chicago, IL, March 2022
96. "Cavity Quantum Electrodynamics in Silicon Carbide Photonics with Color Centers," Daniil M. Lukin, Melissa A. Guidry, Joshua Yang, Sattwik Deb Mishra, Hiroshi Abe, Takeshi

Ohshima, Jawad Ul-Hassan, Jelena Vuckovic, *APS March Meeting,* Chicago, IL, March 2022

97. "Multimode quantum correlations of soliton microcombs in silicon carbide photonics," Melissa A. Guidry, Daniil M. Lukin, Ki Youl Yang, Rahul Trivedi, Jelena Vuckovic, *APS March Meeting,* Chicago, IL, March 2022

98. "Achieving high cooperativity for a semiconductor color center in a superconducting resonator," Eric Rosenthal, Jelena Vuckovic, *APS March Meeting,* Chicago, IL, March 2022

99. "A nanophotonic interface for tin vacancy qubit in diamond," Daniel Riedel, Alison Rugar, Shahriar Aghaeimeibodi, Constantin Dory, Haiyu Lu, Patrick J. McQuade, Zhi-Xun Shen, Nicholas A. Melosh, and Jelena Vučković, *SPIE Photonics West*, San Francisco, CA, January 2022

100. "Quantum control of microwave-to-optical transducers for inhomogeneous broadening compensation," Sattwik Deb Mishra, Rahul Trivedi, Amir H. Safavi-Naeini, and Jelena Vuckovic, *WQED workshop* (2021)

101. "A nanophotonic interface for tin-vacancy spin qubits in diamond," Shahriar Aghaeimeibodi, Alison E. Rugar, Daniel Riedel, Constantin Dory, Sattwik Deb Mishra, Shuo Sun, Haiyu Lu, Patrick J. McQuade, Zhi-Xun Shen, Nicholas A. Melosh, and Jelena Vučković, *SPIE Optics and Photonics*, San Diego, CA, Aug. 2021

102. "Quantum control of microwave-to-optical transducers for inhomogeneous broadening compensation," Sattwik Deb Mishra, Rahul Trivedi, Amir H. Safavi-Naeini, and Jelena Vuckovic, *CLEO* (2021)

103. "Inverse-designed Optical Vortex Beam Emitters," A.D.White, K.Y.Yang, J.Vuckovic, *CLEO* (2021)

104. "Inverse Design of Visible Integrated Photonics for an Ultracold Strontium Optical Clock," G. Spektor, D. Carlson, Z. Newman, J.L. Skarda, N. Sapra, L. Su, Y.M. Tso, S. Jammi, A. Ferdinand, A. Rakholia,W. Lunden,M. Boyd, K. Srinivasan, C.Ropp, A. Agrawal, V. Aksyuk, J. Vučković, S. B. Papp, *CLEO* (2021)

105. "Inverse-designed optical link for chip-to-chip communication," K.Y.Yang, A.D.White, F.Ashtiani, L.Chang, G.H.Ahn, A. Netherton, J. Skarda, L.Su, D.Vercruysse, J.MacLean, S.Aghaeimeibodi, J.E.Bowers, F.Aflatouni, J.Vuckovic, *CLEO* (2021)

106. "Inverse Spectral Design of Kerr Microcomb Pulses," Erwan Lucas, Su-Peng Yu, Geun Ho Ahn, Kiyoul Yang, Jelena Vuckovic, Scott B. Papp, *CLEO* (2021)

107. "Observation of arbitrary topological windings of a non-Hermitian band," Kai Wang, Avik Dutt, Ki Youl Yang, Casey Wojcik, Jelena Vuckovic, and Shanhui Fan, *CLEO* (2021)

108. "Narrow linewidth tin-vacancy centers in diamond waveguides," Alison E. Rugar, Shahriar Aghaeimeibodi, Constantin Dory, Haiyu Lu, Patrick J. McQuade, Sattwik Deb Mishra, Shuo Sun, Zhi-Xun Shen, Nicholas A. Melosh, Jelena Vuckovic, *CLEO* (2021)

109. "Narrow linewidth tin-vacancy centers in diamond waveguides," Alison E. Rugar, Shahriar Aghaeimeibodi, Constantin Dory, Haiyu Lu, Patrick J. McQuade, Sattwik Deb Mishra, Shuo Sun, Zhi-Xun Shen, Nicholas A. Melosh, Jelena Vuckovic, *APS March Meeting* (2021)

110. "Inverse design of on chip microresonator dispersion," Geun Ho Ahn, Kiyoul Yang, Jinhie Skarda, Rahul Trivedi, Jelena Vuckovic, *Photonics West*, San Francisco, CA, Feb. 2021

111. " Inverse Spectral Design of Kerr Microcomb Pulses," Erwan Lucas, Su-Peng Yu, Geun Ho An, Kiyoul Yang, Jelena Vuckovic, Scott Papp, *Photonics West*, San Francisco, CA, Feb. 2021

112. "Generation of single-photon and two-photon pulses from a self-assembled quantum dot," Lukas Hanschke, Kevin Fischer, Jakob Wierzbowski, Stefan Appel, Daniil Lukin, Shuo Sun, Rahul Trivedi, Malte Kremser, Tobias Simmet, Constantin Dory, Jelena Vuckovic, Jonathan Finley and Kai Müller, *QD2020*, Munich, Germany

113. "Towards inverse-designed optical interconnect," Jinhie Skarda, Kiyoul Yang, Melissa Guidry, Geun Ho Ahn, Jelena Vuckovic, *IEEE Optical Interconnects Conference,* Montreal, Canada, July 2020

114. "Broadband Tuning and Microwave Control of Color Centers in Silicon Carbide," Alexander D. White, Daniil M. Lukin, Melissa A. Guidry, Rahul Trivedi, and Jelena Vuckovic, *CLEO*, San Jose, CA, June 2020

115. "Inverse-designed optical interconnect based on multimode photonics and mode-division multiplexing," Ki Youl Yang, Jinhie Skarda, Farshid Ashtiani, Melissa A. Guidry, Avik Dutt, Shanhui Fan, Firooz Aflatouni, and Jelena Vuckovic, *CLEO*, San Jose, CA, June 2020

116. "Inverse design of microresonator dispersion for nonlinear optics," Geun Ho Ahn, Kiyoul Yang, Jinhie Skarda, Jelena Vuckovic, *CLEO*, San Jose, CA, June 2020

117. "Optical parametric oscillation using 4H-SiC-on-insulator nanophotonics," Melissa A. Guidry, Ki Youl Yang, Daniil M. Lukin, Joshua Yang, Jelena Vuckovic, *CLEO*, San Jose, CA, June 2020

118. "Generation of Tin-Vacancy Centers in Diamond via Shallow Ion Implantation and Subsequent Diamond Overgrowth," Alison E. Rugar, Haiyu Lu, Constantin Dory, Shuo Sun, Patrick J. McQuade, Zhi-Xun Shen, Nicholas A. Melosh, and Jelena Vuckovic, *CLEO*, San Jose, CA, June 2020

119. "Towards peta-bit/s optical links," Farshid Ashtiani, Su-Peng Yu, Geun Ho Ahn, Jinhie Skarda, Logan Su, Dries Vercruysse, Ki Youl Yang, Chinmay Shirpurkar, Peter Delfyett, Jelena Vuckovic, Scott B. Papp, and Firooz Aflatouni, *Open Compute Project Global Summit (2020 OCP Global Summit),* San Jose, CA, March 2020

120. "Control of the Silicon Vacancy in Silicon Carbide via Electric and Magnetic Fields," Daniil Lukin, Melissa Guidry, Shuo Sun, Constantin Dory, Jelena Vuckovic, *APS March Meeting,* Denver, CO, March 2020

121. "Second-order Nonlinear Frequency Conversion and Integrated Color Centers in Silicon Carbide Nanophotonics," Melissa Guidry, Daniil Lukin, Kiyoul Yang, Constantin Dory, Jelena Vuckovic, *APS March Meeting,* Denver, CO, March 2020

122. "Photon blockade in Tavis Cumming model," Rahul Trivedi, Marina Radulaski, Kevin Fischer, Shanhui Fan and Jelena Vuckovic, *APS March Meeting*, Denver, CO, March 2020

123. "Point-coupling Hamiltonian for frequency-independent linear optical devices," Rahul Trivedi, Kevin Fischer, Sattwik Deb Mishra and Jelena Vuckovic, *APS March Meeting*, Denver, CO, March 2020

124. "Fundamental limits on performance of electromagnetic devices," Rahul Trivedi, Guillermo Angeris, Logan Su, Shanhui Fan and Jelena Vuckovic, *APS March Meeting*, Denver, CO, March 2020

125. "Site-controlled generation of tin-vacancy centers in diamond via shallow ion implantation and subsequent diamond growth," Alison E. Rugar, Haiyu Lu, Constantin Dory, Shuo Sun, Patrick J. McQuade, Zhi-Xun Shen, Nicholas A. Melosh, Jelena Vuckovic, *APS March Meeting*, Denver, CO, March 2020

126. "Dispersion engineering with inverse design," Dries Vercruysse, Rahul Trivedi, Neil Sapra, Logan Su, Jelena Vuckovic, *SPIE Photonics West,* San Francisco, February 2020

127. "Inverse design and demonstration of laser driven particle accelerators on chip, Neil V. Sapra, Ki Youl Yang, Dries J. F. Vercruysse, Kenneth Liddle, Dylan Black, Logan Su, Rahul Trivedi, Yu Miao, Olav Solgaard, Bob Byer, Jelena Vučković, *SPIE Photonics West,* San Francisco, February 2020

128. "Nonlinear isolation in an inverse-designed silicon photonic circuit," Ki Youl Yang, Jinhie Skarda, Michele Cotrufo, Geun Ho Ahn, Andrea Alu, and Jelena Vuckovic, *Frontiers in Optics*, Washington, DC, September 2019

129. "Foundry-fabricated inverse designed photonics," Alexander Y. Piggott, Logan Su, Neil Sapra, Akhilesh Khope, Andy Netherton, John Bowers, and Jelena Vuckovic, *Frontiers in Optics*, Washington, DC, September 2019

130. "Fast and numerically exact metasurface simulation," Rahul Trivedi, Logan Su, Neil V. Sapra, Seunghoon Han, Shanhui Fan, and Jelena Vuckovic, *Frontiers in Optics, Washington, DC*, September 2019

131. "Dispersion engineering with inverse design," Dries Vercruysse, Rahul Trivedi, Neil Sapra, Logan Su, Jelena Vuckovic, *SPIE Optics + Photonics,* San Diego, CA, Aug. 2019

132. "Waveguide-integrated dielectric laser particle accelerators through inverse design," Neil V. Sapra, Ki Youl Yang, Dries J. F. Vercruysse, Logan Su, Jelena Vučković, *CLEO*, San Jose, CA, May 2019

133. "Inverse designed Fano resonance in silicon microresonators," Ki Youl Yang, Jinhie Skarda, Michele Cotrufo, Geun Ho Ahn, Andrea Alu and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2019

134. "Inverse Designed Cavity-Waveguide Couplers," Jinhie Skarda, Ki Youl Yang, Dries Vercruysse, Neil V. Sapra, Logan Su, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2019

135. "Optical Characterization of Single Tin-Vacancy Centers in Diamond Nanopillars," Alison E. Rugar, Constantin Dory, Shuo Sun, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2019

136. "Diamond Photonic Circuits," Constantin Dory, Dries Vercruysse, Ki Youl Yang, Neil V. Sapra, Alison E. Rugar, Shuo Sun, Daniil M. Lukin, Alexander Y. Piggott, Jingyuan L.

Zhang, Marina Radulaski, Konstantinos G. Lagoudakis, Logan Su and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2019

137. "4H-SiC-on-Insulator Platform for Quantum Photonics," Daniil Lukin, Constantin Dory, Marina Radulaski, Shuo Sun, Sattwik Deb Mishra, Melissa Guidry, Dries Vercruysse, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2019

138. "Frequency tunable single-photon emission from a single atomic defect in a solid," Shuo Sun, Jingyuan Linda Zhang, Kevin A. Fischer, Michael J. Burek, Constantin Dory, Konstantinos G. Lagoudakis, Yan-Kai Tzeng, Marina Radulaski, Yousif Kelaita, Amir Safavi-Naeini, Zhi-Xun Shen, Nicholas A. Melosh, Steven Chu, Marko Loncar and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2019

139. "Lithographically-defined strain control in atomically-thin semiconductors," Leo Yu, Linda Zhang, Jelena Vuckovic, Tony Heinz, *APS March Meeting*, Boston, MA, March 2019

140. "Optimized Photonic Quantum Hardware in Diamond," Constantin Dory, Dries Vercruysse, Ki Youl Yang, Neil V. Sapra, Alison E. Rugar, Shuo Sun, Daniil M. Lukin, Alexander Y. Piggott, Jingyuan L. Zhang, Marina Radulaski, Konstantinos G. Lagoudakis, and Jelena Vuckovic, *APS March Meeting*, Boston, MA, March 2019

141. "4H-SiC-on-insulator platform for quantum photonics with color centers," Daniil M. Lukin, Constantin Dory, Marina Radulaski, Shuo Sun, Dries Vercruysse, and Jelena Vuckovic, *APS March Meeting*, Boston, MA, March 2019

142. "Demonstration of Inverse Designed Broadband Cavity-Waveguide Couplers," Jinhie Skarda, Ki Youl Yang, Dries Vercruysse, Neil V. Sapra, Logan Su, Rahul Trivedi, Alexander Y. Piggott, and Jelena Vučković, *APS March Meeting*, Boston, MA, March 2019

143. "Study of single tin-vacancy centers in diamond," Alison E. Rugar, Shuo Sun, Constantin Dory, Jelena Vuckovic, *APS March Meeting*, Boston, MA, March 2019

144. "Analysis of weakly-driven multi-emitter cQED systems", Rahul Trivedi, Marina Radulaski, Kevin Fisher and Jelena Vuckovic, *APS March Meeting*, Boston, MA, March 2019

145. "4H-SiC-on-insulator platform for quantum photonics," Daniil M. Lukin, Constantin Dory, Marina Radulaski, Shuo Sun, Dries Vercruysse, and Jelena Vuckovic, *Workshop on SiC quantum devices*, Royal Society, London, UK, Nov. 2018

146. "Cathodoluminescence spectroscopy and transmission electron microscopy imaging of localized quantum emitters in van-der waals materials," Fariah Hayee, Leo Yu, Jingyuan Linda Zhang, Jelena Vuckovic, Tony F. Heinz, Jennifer Dionne*, MRS Fall Meeting*, Boston, MA, November 2018

147. Challenges in simulating beam dynamics of dielectric laser acceleration, U. Niedermayer, A. Adelmann, R. Aßmann , S. Bettoni, D. S. Black, O. Boine-Frankenheim, P. N. Broaddus, R.L. Byer, M. Calvi, H. Cankaya, A. Ceballos, D. Cesar, B. Cowan, M. Dehler, H. Deng, U. Dorda, T. Egenolf, M. Fakhari , A. Fallahi, S. Fan, E. Ferrari, F. Frei , T. Feurer, J. Harris, I. Hartl, D. Hauenstein, B. Hermann, N. Hiller, T. Hirano, P. Hommelhoff, Y.-C.Huang, Z. Huang, T. W. Hughes, J. Illmer, R. Ischebeck, Y. Jiang, F. Kärtner, W. Kuropka, T. Langenstein, Y. J. Lee, K. Leedle, F. Lemery, A. Li, C. Lomboss , B. Marchetti, F. Mayet, Y. Miao, A. Mittelbach, P. Musumeci, B. Naranjo, A. Piggott, E. Prat, M. Qi, S.Reiche, L.

Rivkin, J. Rosenzweig, N. Sapra, N. Schönenberger, X. Shen, R. Shiloh, E.Skär, E. Simakov, O. Solgaard, L. Su, A. Tafel, S. Tan, J. Vuckovic, Z. Wu, H. Xuan, K. Yang, P. Yousefi, Z. Zhao, J. Zhu, *ICAP 2018*, Key West Floriday Oct 20-24. [plenary]

148. "Generation of single-photon and two-photon pulses from a self-assembled quantum dot," Lukas Hanschke, Kevin Fischer, Jakob Wierzbowski, Stefan Appel, Daniil Lukin, Shuo Sun, Rahul Trivedi, Malte Kremser, Tobias Simmet, Constantin Dory, Jelena Vuckovic, Jonathan Finley and Kai Müller, *International Conference on Integrated Quantum Photonics (ICIQPS),* Paris, France (October 2018)

149. "Generation of single-photon and two-photon pulses from a quantum two-level system," Lukas Hanschke, Kevin Fischer, Jakob Wierzbowski, Stefan Appel, Daniil Lukin, Shuo Sun, Rahul Trivedi, Malte Kremser, Tobias Simmet, Constantin Dory, Jelena Vuckovic, Jonathan Finley, Kai Mueller, *ICPS (34th International Conference on the Physics of Semiconductors)*, Montpelier, France, August 2018

150. "Generation of pulsed quantum light," Kevin Fischer, Jelena Vuckovic, *Quantum Science Gordon Research Conference*, Stonehill College in Easton, MA, July 29 - August 03, 2018

151. "Quantum dot single photon sources with ultra-low multi-photon probability," Lukas Hanschke, Kevin A. Fischer, Stefan Appel, Daniil Lukin, Jakob Wierzbowski, Shuo Sun, Rahul Trivedi, Jelena Vuckovic, Jonathan J. Finley, and Kai Mueller, *Quantum Nanophotonics, SPIE Optics and Photonics*, San Diego, CA, Aug. 2018

152. "Toward direct structural imaging of solid-state quantum emitters," Fariah Hayee, Leo Yu, Jingyuan Linda Zhang, Jelena Vuckovic, Tony Heinz, Jennifer Dionne, *SPIE Optics and Photonics*, San Diego, Aug. 2018

153. "Enhanced High-Harmonic Generation from an all-dielectric metasurface," Hanzhe Liu, Cheng Guo, Giulio Vampa, Jingyuan Linda Zhang, Tomas Sarmiento, Meng Xiao, Philip H. Bucksbaum, Jelena Vučković, Shanhui Fan, and David A. Reis, *Ultrafast Phenomena Conference,* Hamburg, Germany, 2018

154. "Continuous Angle Beam Steering Using Spatiotemporal Frequency-Comb Control in Dielectric Metasurfaces," Amr Shaltout, Konstantinos Lagoudakis, Jorik van de Groep, Soo Jin Kim, Jelena Vuckovic, Vladimir Shalaev, Mark Brongersma, *CLEO*, San Jose, CA, May 2018

155. "Fabrication Constrained Inverse Design of a 3-channel Wavelength Demultiplexer," Alexander Y. Piggott, Logan Su, Neil V. Sapra, Jan Petykiewicz, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2018

156. "Fully-automated grating coupler design through adjoint optimization," Logan Su, Rahul Trivedi, Neil V. Sapra, Alexander Y. Piggott, Dries Vercruysse, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2018

157. "Diamond Color Center Integration with a Silicon Carbide Photonics Platform," Marina Radulaski, Yan-Kai Tzeng, Jingyuan Linda Zhang, Hitoshi Ishiwata, Konstantinos G. Lagoudakis, Constantin Dory, Kevin A. Fischer, Yousif A. Kelaita, Shuo Sun, Peter C. Maurer, Kassem Alassaad, Gabriel Ferro, Zhi-Xun Shen, Nicholas A. Melosh, Steven Chu, Jelena Vuckovic, *CLEO*, San Jose, CA, May 2018

158. "Two-photon bundles from a single two-level system," L. Hanschke, K. A. Fischer, J. Wierzbowski, T. Simmet, C. Dory, J.J. Finley, J. Vučković, K. Müller, *CLEO*, San Jose, CA, May 2018

159. "Quantum dot single photon sources with ultra-low multi-photon error rate," Lukas Hanschke, Kevin A. Fischer, Stefan Appel, Daniil Lukin, Jonathan J. Finley, Jelena Vuckovic, and Kai Müller, *CLEO*, San Jose, CA, May 2018

160. "Enhanced Solid-State High-Harmonic Generation from a Silicon Metasurface," Hanzhe Liu, Cheng Guo, Giulio Vampa, Jingyuan Linda Zhang, Tomas Sarmiento, Meng Xiao, Philip H. Bucksbaum, Jelena Vučković, Shanhui Fan, and David A. Reis, *CLEO*, San Jose, CA, May 2018

161. "Level-set Fabrication Constraints for Gradient-based Optimization of Optical Devices," Dries Vercruysse, Logan Su, Rahul Trivedi, Neil V. Sapra, Alexander Y. Piggott, and Jelena Vučković, *CLEO*, San Jose, CA, May 2018

162. "Spontaneous and Stimulated Emission from Quantum Optical Systems," Rahul Trivedi*, Kevin Fischer, Shanshan Xu, Shanhui Fan and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2018

163. "Strongly Cavity-Enhanced Spontaneous Emission from Silicon-Vacancy Centers in Diamond," Jingyuan Linda Zhang, Shuo Sun, Michael Burek, Constantin Dory, Yan-Kai Tzeng, Kevin A. Fischer, Yousif Kelaita, Konstantinos G. Lagoudakis, Marina Radulaski, Zhi-Xun Shen, Nicholas A. Melosh, Steven Chu, Marko Lončar, Jelena Vuckovic, *CLEO*, San Jose, CA, May 2018

164. "Scattering of Coherent Pulses from Quantum-Optical Systems," Kevin A. Fischer, Rahul Trivedi, Vinay Ramasesh, Irfan Siddiqi, Jelena Vučković, *CLEO*, San Jose, CA, May 2018

165. "Strain-controlled Quantum Dots in Atomically-Thin Semiconductors," Leo Yu, Sven Borghardt, Jingyuan Linda Zhang, Jelena Vuckovic, Tony Heinz, *APS March Meeting*, Los Angeles, California, March 2018

166. "Stimulated and spontaneous emission from open quantum systems," Rahul Trivedi, Kevin Fisher, Shanshan Xu, Shanhui Fan and Jelena Vuckovic*, APS March Meeting*, Los Angeles, California, March 2018

167. "Hybrid Diamond-Silicon Carbide Color Center Photonics," Marina Radulaski, Yan-Kai Tzeng, Jingyuan Linda Zhang, Konstantinos G. Lagoudakis, Hitoshi Ishiwata, Constantin Dory, Kevin A. Fischer, Yousif A. Kelaita, Shuo Sun, Peter C. Maurer, Kassem Alassaad, Gabriel Ferro, Zhi-Xun Shen, Nicholas Melosh, Steven Chu and Jelena Vučković, *APS March Meeting*, Los Angeles, California, March 2018

168. "Enhanced spontaneous emission form quantum dots coupled to metal nano-antennas," A. Regler, A. A. Lyamkina, A. Nolinder, A. K. Bakarov, A. I. Toropov, S. P. Moshchenko, K. Müller , J. Vuckovic, J. J. Finley, and M. Kaniber, *International Conference on Optics of Excitons in Confined Systems (OECS)*, Bath, UK, September 2017

169. "Nonclassical Light Generation with Tunable Photon Statistics from Strongly Coupled Nanophotonic Systems," Constantin Dory, Kevin A.

Fischer, Kai Müller, Konstantinos G. Lagoudakis, Tomas Sarmiento, Armand Rundquist[1], Jingyuan L. Zhang, Yousif Kelaita, Neil V. Sapra, Jelena Vučković, *Quantum Nanophotonics, CSF Conference*, Monte Verità, Aug 20 - Aug 25, 2017

170. "Color center quantum nanophotonics," Marina Radulaski, Matthias Widmann, Yan-Kai Tzeng, Jingyuan Linda Zhang, Constantin Dory, Konstantinos G. Lagoudakis, Jörg Wrachtrup, Nicholas A. Melosh, Zhi-Xun Shen, Steven Chu, Jelena Vučković, *Quantum Nanophotonics, CSF Conference*, Monte Verità, Aug 20 - Aug 25, 2017

171. "Laser scanning using spatiotemporal beam dynamics in metasurfaces," Amr M. Shaltout, Konstantinos Lagoudakis, Soo Jin Kim, Jelena Vuckovic, Vladimir M. Shalaev, Mark L. Brongersma, *SPIE Conference on Metamaterials, Metadevices, and Metasystems 2017*, San Diego, CA, Aug. 6-17, 2017

172. "Two-photon bundles from a single two-level system," Lukas Hanschke, Kevin A. Fischer, Jakob Wierzbowski, Tobias Simmet, Constantin Dory, Jonathan J. Finley, Jelena Vuckovic, Kai Müller, *Quantum Nanophotonics Conference, SPIE Nanoscience + Engineering Symposium,* San Diego, CA, Aug. 6-10, 2017

173. "Complete Coherent Control of Silicon-Vacancies in Diamond Nanopillars Containing Single Defect Centers , Linda Zhang, Konstantinos Lagoudakis, Jelena Vuckovic, Gordon Research Conference on Quantum Sensing, *Chinese University of Hong Kong*, July 2-8, 2017

174. "Mollow Triplets with Tunable Interactions in Double Lambda Systems of Individual Hole Spins," K. G. Lagoudakis, K. A. Fischer, T. Sarmiento, P. L. McMahon, M. Radulaski, J. L. Zhang, Y. Kelaita, C. Dory, K. Müller & J. Vučković, *PLMCN*, Munich, Germany, June 2017

175. "Emission of two-photon pulses from a quantum two-level system," Kevin A. Fischer, Lukas Hanschke, Jakob Wierzbowski, Tobias Simmet, Constantin Dory, Jonathan J. Finley, Jelena Vuckovic, Kai Mueller, *PLMCN*, Munich, Germany, June 2017

176. "Re-excitation as a Source of Error in Single-Photon Sources Based on Quantum Two-Level Systems," Kevin A. Fischer, Kai Müller, Konstantinos G. Lagoudakis, Jelena Vučković, *CLEO Europe*, Munich, Germany, June 2017 [poster]

177. "Towards a fully integrated accelerator on a chip," K. Wooton et al, *Proceedings of the IPAC 2017 (International Particle Accelerartors Conference)*, Copenhagen, Denmark, May 2017

178. "Effects of Homodyne Interference on Jaynes-Cummings Emission for Single Photon Generation," Kevin A. Fischer, Yousif A. Kelaita, Neil V. Sapra, Constantin Dory, Konstantinos G. Lagoudakis, Kai Müller, and Jelena Vučković, *CLEO-QELS*, San Jose, CA, May 2017

179. "Tuning the Photon Statistics of a Strongly Coupled Nanophotonic System," Constantin Dory, Kevin A. Fischer, Kai Müller, Konstantinos G. Lagoudakis, Tomas Sarmiento, Armand Rundquist, Jingyuan L. Zhang, Yousif Kelaita, Neil V. Sapra, and Jelena Vuckovic, *CLEO-QELS*, San Jose, CA, May 2017

Selected as a finalist for the OSA Tingyue Li Innovation Prize

180. "Scalable Quantum Photonics with Single Color Centers in Silicon Carbide," Marina Radulaski, Matthias Widmann, Matthias Niethammer, Jingyuan Linda Zhang, Sang-Yun Lee, Torsten Rendler, Konstantinos G. Lagoudakis, Nguyen Tien Son, Erik Janzen, Takeshi Ohshima, Jörg Wrachtrup, and Jelena Vučković, *CLEO-QELS*, San Jose, CA, May 2017

181. "Tuning the Photon Statistics of a Strongly Coupled Nanophotonic System," C. Dory, K A Fischer, K Müller, K G Lagoudakis, T Sarmiento, A Rundquist, J L Zhang, Y Kelaita, N V Sapra, and J Vuckovic, *APS March Meeting*, New Orleans, Lousiana, March 2017

182. "Complete Quantum Control of a Single Silicon-vacancy Center in a Diamond Nanopillar," J. L. Zhang, K. G. Lagoudakis, Y.-K. Tzeng, C. Dory, M. Radulaski, Y. Kelaita, Z.-X. Shen, N. A. Melosh, S. Chu, J. Vučković, *APS March Meeting*, New Orleans, Lousiana, March 2017

Winner of the Grand Prize at the Maiman Student Paper Competition

183. "Multi-Emitter Cavity Quantum Electrodynamics in Solid State Systems," Marina Radulaski, Kevin Fischer, Konstantinos Lagoudakis, Linda Zhang, Jelena Vuckovic, *APS March Meeting*, New Orleans, Lousiana, March 2017

184. "Observation of Mollow Triplets with Tunable Interactions in Double Lambda Systems of Individual Hole Spins," K. G. Lagoudakis, K. A. Fischer, T. Sarmiento, M. Radulaski, L. J. Zhang, P. L. McMahon, Y. Kelaita, C. Dory, K. Müller & J. Vučković, *APS March Meeting*, New Orleans, Lousiana, March 2017

185. "Design grid optimization for OPC of silicon photonics, Wenhui Wang," Xiaochi Chen, Lei Sun, Alexander Yukio Piggott, Jelena Vuckovic, Jongwook Kye, *SPIE Advanced Litho*, San Jose, February 2017

186. "Observation of Mollow Triplets with Tunable Interactions in Double Lambda Systems of Individual Hole Spins," K. G. Lagoudakis, K. A. Fischer, T. Sarmiento, M. Radulaski, L. J. Zhang, P. L. McMahon, Y. Kelaita, C. Dory, K. Müller & J. Vučković, *IQC Quantum Inovators Workshop*, Waterloo, Canada, October 2016

187. "Vertical-Substrate MPCVD Epitaxial Diamond Growth," Yan-Kai Tzeng, Haiyu Lu, Jingyuan Linda Zhang, Hitoshi Ishiwata, Jeremy Dahl, Robert M. K. Carlson, Hao Yan, Peter R. Schreiner, Jelena Vuckovic, Zhi-Xun Shen, Nicholas Melosh, Steven Chu, *MRS Fall Meeting*, Boston, Nov. 2016

188. "Remarkable interplay between strain and parasitic absorption unravelling the best route for Ge based Si-compatible lasing at room temperature," Shashank Gupta, Jan Petykiewicz, Donguk Nam, David Sukhdeo, Jelena Vuckovic, Krishna Saraswat, *IEEE Photonics Conference (IPC),* Waikoloa, Hawaii, Oct. 2016

189. "Dramatic and previously overlooked interaction between strain and parasitic absorption in germanium with major implications for Si-compatible lasing," Shashank Gupta, Jan Petykiewicz, Donguk Nam, David Sukhdeo, Jelena Vuckovic, Krishna Saraswat, *CLEO/QELS*, San Jose, CA, June 2016

190. "Low Strain Silicon-Vacancy Color Centers in Diamond Nanopillar Arrays," Jingyuan Linda Zhang, Hitoshi Ishiwata, Thomas M. Babinec, Marina Radulaski, Kai

Müller, Konstantinos G. Lagoudakis, Constantin Dory, Zhi-Xun Shen, Nicholas A. Melosh, Jelena Vučković, *CLEO/QELS*, San Jose, CA, June 2016

191. "Emitter-Cavity Coupling in Hybrid Silicon Carbide-Nanodiamond Microdisk Resonators," Marina Radulaski, Yan-Kai Tzeng, Jingyuan Linda Zhang, Hitoshi Ishiwata, Konstantinos Lagoudakis, Veroniqe Souliere, Gabriel Ferro, Zhi-Xun Shen, Nicholas A. Melosh, Steven Chu, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2016

192. "Inverse Design of a Wavelength Demultiplexer," Alexander Y. Piggott, Jesse Lu, Konstantinos G. Lagoudakis, Thomas Babinec, Jan Petykiewicz, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2016

193. "Nanocavity-enabled Ultrafast Generation of Highly-indistinguishable Photons," Kevin A. Fischer, Kai Müller, Constantin Dory, Tomas Sarmiento, Konstantinos G. Lagoudakis, Armand Rundquist, Yousif Kelaita, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2016

194. "Complete Coherent Control of a Strongly Coupled Quantum Dot-Cavity Polariton System," Constantin Dory, Kevin A. Fischer, Kai Müller, Konstantinos G. Lagoudakis, Tomas Sarmiento, Armand Rundquist, Linda Zhang, Yousif Kelaita, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2016

195. "Nanocavity-enabled Ultrafast Generation of Highly-indistinguishable Photons," Kevin A. Fischer, Kai Müller, Constantin Dory, Tomas Sarmiento, Konstantinos G. Lagoudakis, Armand Rundquist, Yousif Kelaita, Jelena Vuckovic, *DAMOP*, Providence, RI, March 2016

196. "Nanocavity-enabled ultrafast generation of highly-indistinguishable photons," Kevin A. Fischer, Kai Müller, Constantin Dory , Tomas Sarmiento, Konstantinos G. Lagoudakis [a], Armand Rundquist, Yousif Kelaita, Jelena Vuckovic, *17th International Conference on Physics of Light-Matter Coupling in Nanostructures (PLMCN17),* Tokyo, Japan, March 2016

197. "3C-SiC microdisks for visible photonics," M. Radulaski, T. M. Babinec, J. L. Zhang, S. M. Buckley, Y. A. Kelaita, K. Müller, K. G. Lagoudakis, K. AlAssaad, G. Ferro, J. Vučković, *16th International Conference on Silicon Carbide and Related Materials,* Giardini Naxos, Italy, October 4 - 9, 2015

198. "Strained Ge Nanowire with High-Q Optical Cavity for Ge Laser Applications," Donguk Nam, Jan Petykiewicz, David S. Sukhdeo, Shashank Gupta, Sonia Buckley, Jelena Vučković and Krishna C. Saraswat, *IEEE Group IV Photonics Conference*, Vancouver, BC, Aug. 2015

199. "Nanophotonics in novel $\chi^{(2)}$-materials: (111)-GaAs and 3C-SiC ," Marina Radulaski, Sonia M. Buckley, Jingyuan L. Zhang, Jan Petykiewicz, Kai Mueller, Konstantinos G. Lagoudakis, Thomas M. Babinec, Kassem Alassaad, Gabriel Ferro, Klaus Biermann and Jelena Vuckovic, *OSA Nonlinear Optics Topical meeting*, Hawaii, July 2015

Highlight: best student paper and presentation award.

200. "Optical Pumping of Individual Spins in Self-Assembled and Site-Controlled Quantum Dots," K. G. Lagoudakis, P. L. McMahon, K. Fischer, K. M. Mueller, T. Sarmiento, D. Dalacu, P. J. Poole, M. E. Reimer, V. Zwiller, Y. Yamamoto and J. Vuckovic, *CLEO-QELS*, San Jose, CA, May 2015

201. "Inverse design and implementation of a wavelength demultiplexing grating coupler," Alexander Y. Piggott, Jesse Lu, Thomas M. Babinec, Konstantinos G. Lagoudakis, Jan Petykiewicz, and Jelena Vuckovic, *CLEO-QELS*, San Jose, CA, May 2015

202. "A novel, highly-strained structure with an integrated optical cavity for a low threshold germanium laser," Shashank Gupta, Donguk Nam, Jan Petykiewicz, David Sukhdeo, Jelena Vuckovic, Krishna Saraswat, *CLEO-QELS*, San Jose, CA, May 2015

203. "Fluorescent Nanodiamonds from Molecular Diamond Seed," Hitoshi Ishiwata, Jingyuan Linda Zhang, Robert Edgington, Thomas M. Babinec, Kai Müller, Konstantinos G. Lagoudakis, Nicholas A. Melsoh, Zhi-Xun Shen, and Jelena Vučković, *CLEO-QELS*, San Jose, CA, May 2015

204. "Visible Photoluminescence in Cubic (3C) Silicon Carbide Coupled to High Quality Microdisk Resonators," Marina Radulaski, Thomas M. Babinec, Kai Müller, Konstantinos G. Lagoudakis, Jingyuan Linda Zhang, Sonia Buckley, Yousif A. Kelaita, Kassem Alassaad, Gabriel Ferro and Jelena Vučković, *CLEO-QELS*, San Jose, CA, May 2015

205. "Hybrid diamond-silicon carbide structures incorporating Si-vacancies in diamond as quantum emitters," Jingyuan Linda Zhang, Hitoshi Ishiwata, Marina Radulaski, Thomas M. Babinec, Kai Mueller, Konstantinos G. Lagoudakis, Gabriel Ferro, Nicholas A. Melosh, Zhi-Xun Shen, Jelena Vuckovic, *CLEO-QELS*, San Jose, CA, May 2015

206. "Towards on-chip generation, routing and detection of non-classical light," F. Flassig, M. Kaniber, G. Reithmaier, K. Mueller, A. Andrejew, R. Gross, J. Vuckovic and J. J. Finley, *SPIE Photonics West*, San Francisco, CA, Feb. 2015

207. "Non-classical higher-order photon correlations from a solid-state cQED system," M. Bajcsy, A. Rundquist, A. Majumdar, T. Sarmiento, K. Fischer, K. G. Lagoudakis, S. Buckley, A. Y. Pigott, and J. Vuckovic, *DAMOP*, Madison, WI June 2014

208. "Mimicking Heterostructure Behavior Within a Single Material at Room Temperature Using Strain," David S. Sukhdeo, Donguk Nam, Ju-Hyung Kang, Jan Petykiewicz, Jae-Hyung Lee,Woo Shik Jung, Jelena Vuckovic, Mark Brongersma, and Krishna C. Saraswat, *CLEO/QELS,* San Jose, CA, June 2014

209. "Photo-oxidative tuning of individual and coupled GaAs," Photonic Crystal Cavities, Alexander Y. Piggott, Konstantinos G. Lagoudakis, Tomas Sarmiento, Michal Bajcsy, and Jelena Vuckovic, *CLEO/QELS,* San Jose, CA, June 2014

210. "2D-material Based Nano-photonics,"Arka Majumdar, Sanfeng Wu, Sonia Buckley, Aaron M. Jones, Jason S. Ross, Nirmal J. Ghimire, Jiaqiang Yan, David G. Mandrus, Wang Yao, Fariba Hatami, Jelena Vučković, Xiaodong Xu, *CLEO/QELS,* San Jose, CA, June 2014

211. "Below bandgap second harmonic generation in GaAs photonic crystal cavites in (111) and (001) Orientations," Sonia Buckley, Marina Radulaski, Jan Petykiewicz, Konstantinos Lagoudakis, Klaus Biermann, Jelena Vuckovic, *CLEO/QELS,* San Jose, CA, June 2014

212. "Ultrafast Light-Matter Interaction in a Metaphotonic Cavity Containing a Single Quantum Dot," Kevin A. Fischer, Thomas M. Babinec, Yousif A. Kelaita, Konstantinos G. Lagoudakis, Tomas Sarmiento, Armand Rundquist, Arka Majumdar, Jelena Vuckovic, *CLEO/QELS,* San Jose, CA, June 2014

213. "Photonic Crystal Cavities in Cubic Silicon Carbide," Marina Radulaski, Sonia Buckley, Linda Zhang, Armand Rundquist, Thomas M. Babinec, J Provine, Kassem Al Assaad, Gabriel Ferro, Jelena Vuckovic, *CLEO/QELS,* San Jose, CA, June 2014

214. Marina Radulaski, S. Buckley, L. Zhang, A. Rundquist, T. M. Babinec, J. Provine, K. AlAsaad, G. Ferro, J. Vuckovic, "Photonic crystal cavities in 3C SiC," *PECS-XI,* Shanghai, China, May 11-15, 2014

215. "Photonic Crystal Cavities in Cubic (3C) Silicon Carbide," Marina Radulaski, Thomas M. Babinec, Sonia Buckley, Armand Rundquist, J Provine, Kassem Alassaad, Gabriel Ferro, and Jelena Vučković, *APS March Meeting,* Denver, CO, March 2014

216. "Control of Two-Dimensional Excitonic Light Emission via Photonic Crystal," Sanfeng Wu, Sonia Buckley, Aaron M. Jones, Jason S. Ross, Nirmal J. Ghimire, Jiaqiang Yan, David G. Mandrus, Wang Yao, Fariba Hatami, Jelena Vuckovic, Arka Majumdar, Xiaodong Xu, *APS March Meeting,* Denver, CO, March 2014

217. "Hybrid metal/dielectric nanocavity for ultrafast quantum dot-optical field interaction," Kevin A. Fischer, Thomas M. Babinec, Yousif A. Kelaita, Konstantinos G. Lagoudakis, Tomas Sarmiento, Arka Majumdar, Jelena Vuckovic, *APS March Meeting,* Denver, CO, March 2014

218. "Direct Bandgap Germanium Nanowires Inferred from 5.0% Uniaxial Tensile Strain," David S. Sukhdeo, Donguk Nam, Ju-Hyung Kang, Jan Petykiewicz, Jae Hyung Lee, Woo Shik Jung, Jelena Vuckovic, Mark L. Brongersma and Krishna C. Saraswat, *Group IV Photonics*, Seoul, S. Korea, Aug. 2013

219. "Single-cell Photonic Nanocavity Probes," Gary Shambat, Sri Rajasekhar Kothapalli, J Provine, Tomas Sarmiento, James Harris, Sanjiv Sam Gambhir and Jelena Vučković, *CLEO/QELS*, San Jose, CA, June 2013

Grand Prize Winner at Maiman Outstanding Student Paper Competition

220. "Zeeman Splitting of Deterministically Charged Quantum Dots Coupled to Photonic Crystal Nanoresonators," Konstantinos G. Lagoudakis, Kevin Fischer, Arka Majumdar, Armand Rundquist, Michal Bajcsy, Tomas Sarmiento, and Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2013

221. "Photonic crystal coupled cavity arrays for quantum simulation," Armand Rundquist, Arka Majumdar, Michal Bajcsy, Vaishno D. Dasika, Seth R. Bank, and Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2013

222. "Nonlinear Optics in (111)-GaAs Photonic Crystal Cavities," Marina Radulaski, Sonia Buckley, Klaus Biermann, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2013

223. "Third-order photon correlations from a quantum dot coupled to a photonic-crystal nanocavity," Michal Bajcsy, Armand Rundquist, Arka Majumdar, Tomas Sarmiento, Konstantinos G. Lagoudakis, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2013

224. "Electrical Control of Photonic Crystal Cavity by Graphene," Arka Majumdar, Jonghwan Kim, Feng Wang, and Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2013

225. "Correlated photons in quantum dot-cavity quantum electrodynamics: beyond the single cavity," Arka Majumdar, Armand Rundquist, Michal Bajcsy, Jelena Vuckovic, *CLEO/QELS*,

San Jose, CA, June 2013

226. "Improvement in Photoluminescence of Coimplanted Germanium by Laser Annealing," Lennon Y. T. Lee, Bruce Adams, Saurabh Chopra, Tomas Sarmiento, Bin Yang, Jan Petykiewicz, Szu-Lin Cheng, Gaurav Thareja, Jelena Vuckovic, and Yoshio Nishi, *ISPEC 2012*, Tokyo, Japan, Dec. 2012

227. "Coupling a single quantum dot to a photonic molecule," Michal Bajcsy, Arka Majumdar, Armand Rundquist, Jelena Vuckovic, *Frontiers in Optics/Laser Science*, Rochester, NY, October 2012

228. "A New Approach to Ge Lasers with Low Pump Power," Xiaochi Chen, Yijie Huo, Edward T. Fei, Gary Shambat, Kai Zang, Xi Liu, Yusi Chen, Theodore I. Kamins, Jelena Vuckovic, James S. Harris, *IEEE Photonics Conference*, Burlingame, CA, Sept. 23-27, 2012

229. "Photon blockade with a four-level atom coupled to a microcavity," M. Bajcsy, A. Majumdar, J. Vuckovic, *DAMOP 2012 Meeting*, Orange County, CA, June 2012

230. "Electrically Driven Photonic Crystal Cavity Devices**,"** Gary Shambat, Bryan Ellis, Jan Petykiewicz, Marie A. Mayer, Arka Majumdar, Tomas Sarmiento, James Harris, Eugene E. Haller, and Jelena Vučković**,** *PECS-X: 10th International Symposium on Photonic and Electromagnetic Crystal Structures*, Santa Fe, New Mexico, USA, June 3-June 8, 2012

Best student paper (oral presentation) award

231. "Phonon Mediated Off-resonant Quantum Dot-Cavity Coupling," Arka Majumdar, Armand Rundquist, Michal Bajcsy, Alexander Papageorge, Erik D. Kim, Jelena Vuckovic, *7th International Conference on Quantum Dots (QD 2012),* Santa Fe, NM (May 2012)

232. "Room Temperature Photoluminescence from Ge/SiGe Quantum Well Structure in Microdisk Resonator," Xiaochi Chen, Yijie Huo, Edward T. Fei, Gary Shambat, Xi Liu, Theodore I. Kamins, Jelena Vuckovic, James S. Harris, *Symposium on Photonics and Optoelectronics (SOPO)*, Shanghai, China (May 2012)

233. "Light Emission in Ge Quantum Wells," Edward T. Fei, Yijie Huo, Gary Shambat, Xiaochi Chen, Xi Liu, Stephanie A. Claussen, Elizabeth H. Edwards, Theodore I. Kamins, David B. Miller, Jelena Vuckovic, James S. Harris, *CLEO*, San Jose, CA, May 2012

234. "Off-resonant Coupling Between a Single Quantum Dot and a Nanobeam Photonic Crystal Cavity," Armand Rundquist, Arka Majumdar, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2012

235. "Multiply Resonant Photonic Crystal Cavities for Nonlinear Frequency Conversion," Sonia Buckley, Kelley Rivoire and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2012

236. "Optical fiber tips functionalized with semiconductor photonic crystal cavities," Gary Shambat, J Provine, Kelley Rivoire, Tomas Sarmiento, James Harris, and Jelena Vučković *CLEO*, San Jose, CA, May 2012

237. "Ultrafast direct modulation of a single-mode photonic crystal nanocavity light-emitting diode," Gary Shambat, Bryan Ellis, Arka Majumdar, Jan Petykiewicz, Marie Mayer, Tomas Sarmiento, James Harris, Eugene Haller, and Jelena Vučković, *CLEO*, San Jose, CA, May 2012

238. "Ultrafast Nonlinear Dynamics in Strongly Coupled Quantum Dot-Cavity system," Arka Majumdar, Dirk Englund, Michal Bajcsy, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2012

239. "Phonon Mediated off-resonant Quantum Dot-Cavity Interaction," Arka Majumdar, Erik D. Kim, Michal Bajcsy, Armand Rundquist, and Jelena Vuckovic, *APS March Meeting*, Boston, MA, March 2012

240. A.M. Marconnet, T. Kodama, Y. Gong, J. Vuckovic, and K.E. Goodson, "Thermal Conduction in Nanobeam Photonic Crystal Cavities," in *Materials Research Society Symposium*, Boston, MA, 2011.

241. "Second harmonic generation in GaP photonic crystal waveguides," Kelley Rivoire, Sonia Buckley, Fariba Hatami, Jelena Vučković, *IEEE Photonics Society Annual Meeting*, Arlington, VA, Oct. 2011

Best student paper award - 2nd place

242. "Multi-photon State Generation from Strongly Coupled Quantum Dot-Cavity System," Michal Bajcsy, Arka Majumdar, and Jelena Vuckovic, *Frontiers in Optics*, San Jose, CA, Oct. 2011

243. "Photoluminescence of $In_{0.5}Ga_{0.5}As$/GaP quantum dots coupled to photonic crystal cavities," Kelley Rivoire, Sonia Buckley, Yuncheng Song, Paul Simmonds, Minjoo Larry Lee, Jelena Vučkovic, *Frontiers in Optics*, San Jose, CA, Oct. 2011

244. "Ge Quantum Well Resonator Modulators," Elizabeth H. Edwards, Ross M. Audet, Edward Fei, Gary Shambat, Rebecca K. Schaevitz, Yiwen Rong, Stephanie A. Claussen, Theodore I. Kamins, Jelena Vuckovic, James S. Harris, and David A. B. Miller, *Proceedings of the IEEE 8th International Conference on Group IV Photonics (GFP)*, pp. 80-82, London, UK, 14-16 Sept. 2011

245. "$In_{0.5}Ga_{0.5}As$/GaP quantum dots in light emitting diodes and photonic crystal cavities," Yuncheng Song, Kelley Rivoire, Paul Simmonds, Sonia Buckley, Jelena Vuckovic, and Minjoo Larry Lee, *North American conference on MBE (NAMBE)*, San Diego, CA, Aug. 2011 [proceedings in press]

246. "Double-layer silicon photonic crystal fiber tip sensor," B. Park, Il Woong Jung, J Provine, G. Shambat, J. Vuckovic, R.T. Howe, O. Solgaard, *Proceedings of the 16th International Conference on Optical MEMS & Nanophotonics (OMN 2011),* pp. 97-98, Istanbul, Turkey, 8-11 Aug. 2011

247. "Quantum Dot Dressing Observed via Off-resonant Cavity," Arka Majumdar, Alexander Papageorge, Erik Kim, Michal Bajcsy, Jelena Vuckovic, *Frontiers in Optics and Laser Science*, San Jose, CA (2011) [proceedings in press]

248. "Multiply Resonant High Quality Photonic Crystal Nanocavities," Sonia Buckley, Kelley Rivoire, Jelena Vuckovic, *OSA NLO Topical meeting*, Hawaii, July 2011 [proceedings in press]

249. "Fast quantum dot single photon source triggered at telecommunications wavelength," Kelley Rivoire, Sonia Buckley, Arka Majumdar, Hyochul Kim, Pierre Petroff, Jelena Vuckovic, *OSA NLO Topical meeting*, Hawaii, July 2011 [proceedings in press]

250. "Atoms and photonic crystal cavities," M. Bajcsy, A. Faraon, K. Rivoire, J. Vuckovic, *DAMOP Annual Meeting*, Atlanta, GA, June 2011 [proceedings in press]

251. "Ultra-low Threshold Electrically Pumped Quantum Dot Photonic Crystal Nanocavity Laser," Bryan Ellis, Marie A. Mayer, Gary Shambat, Tomas Sarmiento, James Harris, Eugene E. Haller, and Jelena Vučković, Proceedings of *CLEO: 2011 - Laser Science to Photonic Applications*, Accession Number: 12135049 (2 pages), Baltimore, MD, USA, 1-6 May 2011 [post-deadline]

252. "Coherent Optical Spectroscopy of a Single Quantum Dot Via an Off-Resonant Cavity," Alexander Papageorge, Arka Majumdar, Erik D. Kim, Michal Bajscy, Hyochul Kim, Pierre Petroff, and Jelena Vuckovic, Proceedings of *CLEO: 2011 - Laser Science to Photonic Applications*, Accession Number: 12135073 (2 pages), Baltimore, MD, USA, 1-6 May 2011 [post-deadline]

253. "Ultra-low power fiber-coupled gallium arsenide photonic crystal electro-optic modulator," Gary Shambat, Bryan Ellis, Arka Majumdar, and Jelena Vuckovic, Proceedings of *CLEO: 2011 - Laser Science to Photonic Applications*, Accession Number: 12141991 (2 pages), Baltimore, MD, USA, 1-6 May 2011

254. "Broadband Tunable Multiply Resonant Photonic Crystal Nanocavities," Sonia Buckley, Kelley Rivoire, and Jelena Vuckovic, Proceedings of *CLEO: 2011 - Laser Science to Photonic Applications*, Accession Number: 12119414 (2 pages), Baltimore, MD, USA, 1-6 May 2011

255. "Direct band Ge photoluminescence at 1.6 μm coupled to Ge-on-Si microdisk resonator," Gary Shambat, Szu-Lin Cheng, Jesse Lu, Yoshio Nishi, and Jelena Vučković, Proceedings of *CLEO: 2011 - Laser Science to Photonic Applications*, Baltimore, MD, USA, 1-6 May 2011

256. "Fast quantum dot single photon source triggered at telecommunications wavelength," Kelley Rivoire, Sonia Buckley, Arka Majumdar, Hyochul Kim, Pierre Petroff, Jelena Vuckovic, Sonia Buckley, Kelley Rivoire, and Jelena Vuckovic, Proceedings of *CLEO: 2011 - Laser Science to Photonic Applications*, Accession Number: 12134834 (2 pages), Baltimore, MD, USA, 1-6 May 2011

257. "Low Power Resonant Optical Excitation of an Optomechanical Cavity," Yiyang Gong, Armand Rundquist, Arka Majumdar, and Jelena Vuckovic, Proceedings of *CLEO: 2011 - Laser Science to Photonic Applications,* Accession Number: 12141955 (2 pages), Baltimore, MD, USA, 1-6 May 2011

258. "Off-resonant quantum dot-cavity interaction," Arka Majumdar, Erik Kim, Yiyang Gong, Andrei Faraon, Dirk Englund, and Jelena Vuckovic, Proceedings of *CLEO: 2011 - Laser Science to Photonic Applications*, Accession Number: 12135310 (2 pages), Baltimore, MD, USA, 1-6 May 2011

259. "Characterizations of Direct Band Gap photoluminescence and electroluminescence from epi-Ge on Si", Szu-Lin Cheng, Jesse Lu, Gary Shambat, Hyun-Yong Yu, Krishna Saraswat, Jelena Vuckovic, and Yoshio Nishi, *ECS Meeting*, *"SiGe, Ge, and Related Compounds 4: Materials, Processing, and Devices"*, Las Vegas, NV, October 2010 [proceedings in press]

260. "Differential Reflection Spectroscopy of Photonic Crystal Cavities Containing Coupled InAs Quantum Dots," Erik D. Kim, Arka Majumdar, Jelena Vuckovic Hyochul Kim and Pierre Petroff, Proceedings of *Frontiers in Optics (FiO) - Laser Science*, Rochester, NY, Oct. 2010

261. "Observation of linewidth narrowing in erbium-doped silicon nitride coupled to photonic crystal nanobeam cavities, Yiyang Gong, Maria Makarova, Selcuk Yerci, Rui Li, Luca Dal Negro and Jelena Vuckovic, Proceedings of *Frontiers in Optics (FiO) - Laser Science*, Rochester, NY, Oct. 2010

262. "Nanobeam Photonic Crystal Cavities," Yiyang Gong, Bryan Ellis, Tomas Sarmiento, James S. Harris, Jelena Vučković, Proceedings of *PECS IX (9th International Conference on Photonic and Electromagnetic Crystal Structures),* Granada, Spain, Sept. 26-30, 2010 [poster]

263. "Nonlinear frequency conversion in GaP photonic crystal cavities," Kelley Rivoire, Ziliang Lin, Fariba Hatami, and Jelena Vučkovic, Proceedings of *PECS IX (9th International Conference on Photonic and Electromagnetic Crystal Structures),* Granada, Spain, Sept. 26-30, 2010. [poster]

264. "Tunable light sources in the visible and near infrared based on fiber taper coupled photonic crystal cavities," Gary Shambat, Yiyang Gong, Kelley Rivoire, Jesse Lu, Selçuk Yerci, Rui Li, Fariba Hatami, Ted Masselink, Luca Dal Negro, and Jelena Vučković, Proceedings of *IEEE Photonics Society Summer Topicals,* Playa del Carmen, Riviera Maya, Mexico, 19-21 July 2010

265. "Photoluminescence from silicon dioxide photonic crystal cavities with embedded silicon nanocrystals," Yiyang Gong, Satoshi Ishikawa, Szu-Lin Cheng, Yoshio Nishi, and Jelena Vuckovic, Proceedings of *OSA IPR-2010* (Integrated Photonics, Silicon and Nano Photonics conference collocated with the OSA Photonics in Switching conference), Santa Cruz/Monterey, CA, July 25-29, 2010.

266. "Electro-optic modulation with a single quantum dot strongly coupled to a nanocavity," Arka Majumdar, Andrei Faraon, Nicolas Manquest, Hyochul Kim, Pierre Petroff, and Jelena Vuckovic, Proceedings of *OSA IPR-2010* (Integrated Photonics, Silicon and Nano Photonics conference collocated with the OSA Photonics in Switching conference), Santa Cruz/Monterey, CA, July 25-29, 2010.

267. "Nonlinear frequency conversion in GaP photonic crystal nanocavities," Kelley Rivoire, Ziliang Lin, Fariba Hatami, W. Ted Masselink, Jelena Vučković, Proceedings of *OSA IPR-2010* (Integrated Photonics, Silicon and Nano Photonics conference collocated with the OSA Photonics in Switching conference), Santa Cruz/Monterey, CA, July 25-29, 2010.

268. "Inverse Design of Nanophotonic Structures using Complementary Convex Optimization," Jesse Lu, Jelena Vuckovic, and Stephen Boyd, Proceedings of *OSA IPR-2010* (Integrated Photonics, Silicon and Nano Photonics conference collocated with the OSA Photonics in Switching conference), Santa Cruz/Monterey, CA, July 25-29, 2010.

269. "Inverse Design of Nanophotonic Structures using Complementary Convex Optimization," Jesse Lu and Jelena Vuckovic, Proceedings of *CLEO: 2010 (Conference on*

Lasers and Electro-Optics), Accession Number: 11411680 (2 pages), San Jose, CA, USA, 16-21 May 2010

270. "Electrically pumped photonic crystal nanocavities using a laterally doped p-i-n junction," Bryan Ellis, Tomas Sarmiento, Marie Mayer, Peter Stone, Jeff Beeman, Bingyang Zhang, Oscar Dubon, Eugene Haller, Yoshihisa Yamamoto, James Harris, and Jelena Vuckovic, Proceedings of *CLEO: 2010 (Conference on Lasers and Electro-Optics),* Accession Number: 11411656 (2 pages), San Jose, CA, USA, 16-21 May 2010

271. "Linewidth narrowing and Purcell enhancement in photonic crystal cavities on an Er-doped silicon nitride platform," Yiyang Gong, Maria Makarova, Selcuk Yerci, Rui Li, Luca Dal Negro, and Jelena Vuckovic, Proceedings of *CLEO: 2010 (Conference on Lasers and Electro-Optics)*, San Jose, CA, USA, 16-21 May 2010

272. "Fiber taper collection of photoluminescence at 1.5 μm from erbium dped silicon nitride photonic crystal cavities," Gary Shambat, Yiyang Gong, Jesse Lu, Luca Dal Negro, and Jelena Vuckovic, Proceedings of *CLEO: 2010 (Conference on Lasers and Electro-Optics)*, San Jose, CA, USA, 16-21 May 2010

273. "Second harmonic generation in gallium phosphide photonic crystal nanocavities with ultralow CW pump power," Kelley Rivoire, Ziliang Lin, Fariba Hatami, W. Ted Masselink, Jelena Vučković, Proceedings of *CLEO: 2010 (Conference on Lasers and Electro-Optics),* San Jose, CA, USA, 16-21 May 2010

274. "Room temperature 1.6μm photoluminescence and electroluminescence from in-situ doped n-type epi-Ge on Si," Szu-Lin Cheng, Jesse Lu, Gary Shambat, Hyun-Yong Yu, Krishna Saraswat, Jelena Vuckovic, and Yoshio Nishi, Proceedings of *MRS Spring Meeting*, San Francisco, April 2010

275. "Optimization of Light emission from Silicon nanocrystals grown by PECVD," Satoshi Ishikawa, Szu-Lin Cheng, Yiyang Gong, Jelena Vuckovic, and Yoshio Nishi, Proceedings of *MRS Spring Meeting*, San Francisco, April 2010

276. Arka Majumdar, Andrei Faraon, Jelena Vuckovic, "Optimal pulse to generate non-classical photon states via photon blockade," Proceedings of *SPIE - Photonics West, Advances in Photonics of Quantum Computing, Memory, and Communication III,* San Francisco, CA, Jan. 23-28, 2010

277. Andrei Faraon, Arka Majumdar, Dirk Englund, Carter Lin, Jelena Vuckovic, "Integrated photonic crystal networks with coupled quantum dots," Proceedings of *SPIE - Photonics West, Advances in Photonics of Quantum Computing, Memory, and Communication III,* San Francisco, CA, Jan. 23-28, 2010

278. Andrei Faraon, Arka Majumdar, Hyochul Kim, Pierre Petroff, Jelena Vuckovic, "Electrically Driven Optical Modulator with a Strongly Coupled Quantum Dot," Proceedings of *OSA Frontiers in Optics*, San Jose, CA, Oct. 11-15, 2009

279. Yiyang Gong, Selcuk Yerci, Luca Dal Negro, and Jelena Vuckovic, "Plasmonic Metal-Insulator-Metal Structures for Interaction with Erbium in Amorphous Silicon Nitride," *OSA Frontiers in Optics*, San Jose, CA, Oct. 11-15, 2009

280. Arka Majumdar, Andrei Faraon, Dirk Englund, Jelena Vuckovic, "Quantum Dot Spectroscopy by means of Non-resonant Dot-Cavity Coupling," Proceedings of *OSA*

Frontiers in Optics, San Jose, CA, Oct. 11-15, 2009

281. Ziliang Lin and Jelena Vuckovic, "Cavity-Enhanced Two-Photon Processes in Quantum Dots and Applications to Quantum Information Science," Proceedings of *OSA Frontiers in Optics*, San Jose, CA, Oct. 11-15, 2009

282. Maria Makarova, Yiyang Gong, Jelena Vuckovic, Selcuk Yerci, Rui Li, Luca Dal Negro, "Differential gain at 1530 nm in Er-doped silicon nitride coupled to photonic crystal cavity," Proceedings of the *6th IEEE International Conference on Group IV Photonics (GFP 2009),* pp. 220-222, San Francisco, California, September 2009

283. Yijie Huo, Hai Lin, Yiwen Rong, Maria Makarova, M. Li, R. Chen, Theodore I. Kamins, Jelena Vuckovic, James S. Harris, "Efficient luminescence in highly tensile-strained germanium," Proceedings of the *6th IEEE International Conference on Group IV Photonics (GFP 2009)*, pp. 265-267, San Francisco, California, September 2009

284. Yijie Huo, Hai Lin, Yiwen Rong, Maria Makarova, Theodore I. Kamins, Jelena Vuckovic, James S. Harris, "Direct Band Gap Tensile-Strained Germanium," Proceedings of *CLEO: 2009 (Conference on Lasers and Electro-Optics)*, Accession Number: 10843236 (2 pages), Baltimore, MD, USA, 2-4 June 2009

285. Dirk Englund, Andrei Faraon, Arka Majumdar, Ilya Fushman & Jelena Vuckovic, "Ultrafast All-Optical Switching with a Single Quantum Dot," Proceedings of *CLEO: 2009 (Conference on Lasers and Electro-Optics)*, Accession Number: 10842940 (2 pages), Baltimore, MD, USA, 2-4 June 2009

286. Yiyang Gong, Szu-Lin Cheng, Yoshio Nishi, and Jelena Vuckovic, "Plasmonic Metal-Insulator-Metal Structures for Interaction with Silicon Nanocrystals," Proceedings of *CLEO: 2009 (Conference on Lasers and Electro-Optics)*, Accession Number: 10842876 (2 pages), Baltimore, MD, USA, 2-4 June 2009

287. Ziliang Lin and Jelena Vuckovic, "Two-Photon Excitation and Emission in Quantum Dots coupled to Photonic Crystal Nanocavities," Proceedings of *CLEO: 2009 (Conference on Lasers and Electro-Optics)*, Accession Number: 10842578 (2 pages), Baltimore, MD, USA, 2-4 June 2009

288. Arka Majumdar, Andrei Faraon, Jelena Vuckovic, "Engineering Anti-bunching via Photon Blockade in Photonic Crystal Cavity-Quantum Dot Systems", Proceedings of *CLEO: 2009 (Conference on Lasers and Electro-Optics)*, Accession Number: 10843057 (2 pages), Baltimore, MD, USA, 2-4 June 2009

289. Bryan Ellis, Tomas Sarmiento, James Harris, and Jelena Vuckovic, "High Efficiency Solar Cells based on Spontaneous Emission Inhibition in Photonic Crystals," Proceedings of *CLEO: 2009 (Conference on Lasers and Electro-Optics),* Accession Number: 10843219 (2 pages), Baltimore, MD, USA, 2-4 June 2009

290. Andrei Faraon, Arka Majumdar, Jelena Vuckovic, "Electrically controlled single quantum dot switching in photonic crystal resonators," Proceedings of *CLEO: 2009 (Conference on Lasers and Electro-Optics)*, Accession Number: 10859073 (2 pages), Baltimore, MD, USA, 2-4 June 2009

291. Kelley Rivoire, Anika Kinkhabwala, W.E. Moerner, Jelena Vuckovic, Fariba Hatami, Yuri Avlasevich, Klaus Müllen, "Probing High-Q Photonic Crystal Resonances With

Fluorescent Molecules," Proceedings of *CLEO: 2009 (Conference on Lasers and Electro-Optics)*, Accession Number: 10859219 (2 pages), Baltimore, MD, USA, 2-4 June 2009

292. Bryan Ellis, Tomas Sarmiento, James Harris, and Jelena Vuckovic, "High Efficiency Solar Cells based on Spontaneous Emission Inhibition in Photonic Crystals," Proceedings of *PECS VIII*, Sydney, Australia (April 2009) [poster]

293. Yiyang Gong, Jesse Lu, Szu-Lin Cheng, Yoshio Nishi, and Jelena Vuckovic, "Plasmonic gratings for interaction with quantum emitters," Proceedings of *LEOS 2008 - 21st Annual Meeting of the IEEE Lasers and Electro-Optics Society*, pp. 14-15, Newport Beach, CA (Nov. 2008)

294. Dirk Englund, Andrei Faraon, Ilya Fushman, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Realization of giant optical nonlinearities in a quantum dot coupled to a nanocavity," Proceedings of *LEOS 2008 - 21st Annual Meeting of the IEEE Lasers and Electro-Optics Society*, pp. 663-664, Newport Beach, CA (Nov. 2008)

295. Kelley Rivoire, Andrei Faraon, and Jelena Vuckovic, "Gallium Phosphide Photonic Crystal Nanocavities in the Visible," Proceedings of *LEOS 2008 - 21st Annual Meeting of the IEEE Lasers and Electro-Optics Society*, pp. 695-696, Newport Beach, CA (Nov. 2008)

296. Andrei Faraon, Ilya Fushman, Dirk Englund, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Dipole induced transparency in waveguide coupled photonic crystal cavities," Proceedings of *LEOS 2008 - 21st Annual Meeting of the IEEE Lasers and Electro-Optics Society*, pp. 622-623, Newport Beach, CA (Nov. 2008)

    Selected as one of the finalists for LEOS Best Student Paper Award

297. Andrei Faraon, Dirk Englund, Ilya Fushman, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Single photon nonlinear optics with quantum dots in photonic crystal resonators," Proceedings of *LEOS 2008 - 21st Annual Meeting of the IEEE Lasers and Electro-Optics Society*, pp. 616-617, Newport Beach, CA (Nov. 2008)

298. Dirk Englund, Andrei Faraon, Ilya Fushman, and Jelena Vuckovic, "Coherent access of a quantum dot strongly coupled to a nanocavity," Proceedings of *MRS Fall Meeting*, Boston, MA, USA, Oct. 2008.

    Note: selected as one of the finalists for MRS student award

299. Dirk Englund, Andrei Faraon, Ilya Fushman, and Jelena Vuckovic, "Quantum information processing on photonic crystal chips," Proceedings of *Gordon Conference on Quantum Information*, Big Sky Resort, Montana, USA, August 2008 [poster]

300. Andrei Faraon, Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Quantum dot - photonic crystal devices for quantum information processing," Proceedings of *Gordon Conference on Quantum Information*, Big Sky Resort, Montana, USA, August 2008 [poster]

301. Maria Makarova, Vanessa Sih, Joe Warga, Luca Dal Negro, and Jelena Vuckovic, "Enhanced Erbium Emission in Photonic Crystal Nanocavities," Proceedings of *2008 CLEO (Conference on Lasers and Electro-Optics)*, Accession number: 10172831 (2 pages), San Jose, CA, 4-9 May 2008

302. Ilya Fushman, Dirk Englund, Andrei Faraon, Jelena Vuckovic, "Probing a quantum dot in the weak coupling regime," Proceedings of *2008 CLEO (Conference on Lasers and Electro-Optics)*, Accession number: 10132485 (2 pages), San Jose, CA, 4-9 May 2008

303. Andrei Faraon, Dirk Englund, Douglas Bulla, Barry Luther-Davies, Benjamin J. Eggleton, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Local tuning of photonic crystal cavities using chalcogenide glasses," Proceedings of *2008 CLEO (Conference on Lasers and Electro-Optics)*, Accession number: 10172809 (2 pages), San Jose, CA, 4-9 May 2008

304. Dirk Englund, Andrei Faraon, Ilya Fushman, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Coherent Probing and Saturation of a Strongly Coupled Quantum Dot," Proceedings of *2008 CLEO (Conference on Lasers and Electro-Optics)*, Accession number: 10132386 (2 pages), San Jose, CA, 4-9 May 2008

305. Bryan Ellis, Ludovico Cademartiri, Geoff Ozin, and Jelena Vuckovic, "Si-based colloidal quantum dot photonic crystal light emitters at telecom wavelengths," Proceedings of *2008 CLEO (Conference on Lasers and Electro-Optics)*, Accession number: 10172234 (2 pages), San Jose, CA, 4-9 May 2008

306. Yiyang Gong and Jelena Vuckovic, "Plasmonic nanocavity for interaction with colloidal quantum dots," Proceedings of *2008 CLEO (Conference on Lasers and Electro-Optics)*, Accession number: 10132381, (2 pages), San Jose, CA, 4-9 May 2008

307. Hideo Iwase, Dirk Englund, and Jelena Vuckovic, "Spontaneous emission control in plasmonic crystal based on InP-TiO-Au-TiO-Si heterostructure," Proceedings of the *JSPS-UNT Winter School on Nanophotonics*, University of North Texas, Feb. 2008

308. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, Yoshio Nishi, "Photoluminescence decay dynamics of silicon-rich silicon nitride films in photonic crystal nanocavity," *Proceedings of LEOS 2007: 20th Annual Meeting of the IEEE Lasers and Electro-Optics Society*, pp. 329-330, Lake Buena Vista, Florida (Oct. 2007)

309. Dirk Englund, Ilya Fushman, Hatice Altug, Jelena Vuckovic, "Low-threshold ultrafast surface-passivated photonic crystal nanocavity lasers," *Proceedings of LEOS 2007: 20th Annual Meeting of the IEEE Lasers and Electro-Optics Society*, pp. 121-122, Lake Buena Vista, Florida (Oct. 2007)

310. E. Waks, D. Sridharan, and J. Vuckovic, "Quantum networking with quantum dots coupled to micro-cavities," Proceedings of the *SPIE Conference on Quantum Communications Realized*, vol. 6780 Issue: 1, pp. 67800A-1-11, Boston, MA (Sept. 2007)

311. Bryan Ellis, Dirk Englund, Ilya Fushman, Bingyang Zhang, Yoshihisa Yamamoto, and Jelena Vuckovic, "Dynamics of quantum dot photonic crystal lasers," Proceedings of *Frontiers in Optics – Laser Science*, San Jose, CA (Oct. 2007) [paper LtuD4]

312. Dirk Englund, Andrei Faraon, Ilya Fushman, and Jelena Vuckovic, "Controlling cavity reflectivity with a single quantum dot," Proceedings of *Frontiers in Optics – Laser Science*, San Jose, CA – postdeadline paper (Oct. 2007)

313. Dirk Englund, Ilya Fushman, Jelena Vuckovic, Hatice Altug, "Terahertz Modulation Room-Temperature Photonic Crystal Nanocavity Laser," Proceedings of *Frontiers in Optics – Laser Science*, San Jose, CA (Oct. 2007) [paper FTuT3]

Selected as a finalist for Student Presentation Award

314. Dirk Englund, Hatice Altug, Ilya Fushman, and Jelena Vuckovic, "Efficient Terahertz room-temperature photonic crystal laser," Proceedings of *CLEO/Europe - IQEC 2007 (European Conference on Lasers and Electro-Optics and the International Quantum Electronics)*, pp. 192, Munich, Germany, June 2007.

315. Dirk Englund, Ilya Fushman, and Jelena Vuckovic, "Analytic Photonic Crystal Cavity Design," Proceedings of *CLEO/Europe - IQEC 2007 (European Conference on Lasers and Electro-Optics and the International Quantum Electronics)*, pp. 1-2, Munich, Germany, June 2007.

316. Yiyang Gong and Jelena Vuckovic, "Plasmon cavities for solid state cavity QED," Proceedings of *CLEO 2007 (Conference on Lasers and Electro-Optics)*, pp. 1722-1723, Baltimore, MD, May 2007

317. Hideo Iwase and Jelena Vuckovic, "Analysis of the spontaneous emission rate enhancement by surface plasmons in a thin metallic layer embedded in semiconductor," Proceedings of *CLEO 2007 (Conference on Lasers and Electro-Optics)*, pp. 2167-2168, Baltimore, MD, May 2007

318. Bryan Ellis, Dirk Englund, Ilya Fushman, Bingyang Zhang, Yoshihisa Yamamoto, and Jelena Vuckovic, "Dynamics of quantum dot photonic crystal lasers," Proceedings of *CLEO 2007 (Conference on Lasers and Electro-Optics)*, pp. 508-509, Baltimore, MD, May 2007

319. Ilya Fushman, Dirk Englund, Jelena Vuckovic, Edo Waks, Nick Stoltz, and Pierre Petroff, "Ultrafast nonlinear optical tuning of photonic crystal cavities," Proceedings of *CLEO 2007 (Conference on Lasers and Electro-Optics)*, pp. 197-198, Baltimore, MD, May 2007

320. Andrei Faraon, Dirk Englund, Ilya Fushman, Jelena Vuckovic, Nick Stoltz, Pierre Petroff, "Local On-Chip Temperature Tuning of InGaAs Quantum Dots," Proceedings of *CLEO 2007 (Conference on Lasers and Electro-Optics)*, pp. 1722-1723, Baltimore, MD, May 2007

321. Dirk Englund, Ilya Fushman, Jelena Vuckovic, "Analytic Photonic Crystal Cavity Design," Proceedings of *CLEO 2007 (Conference on Lasers and Electro-Optics)*, pp. 91-92, Baltimore, MD, May 2007

322. Hatice Altug, Dirk Englund, Jelena Vuckovic, "Photonic crystal surface mode laser," Proceedings of *CLEO 2007 (Conference on Lasers and Electro-Optics)*, pp. 1959-1960, Baltimore, MD, May 2007

323. H. Sanda, M Makarova, J. Hagemeier, J. Mc Vittie, J. Vuckovic, and Y. Nishi, "Passivation effects on optical and material characteristics of silicon nanocrystals by high pressure water annealing and forming gas annealing," *MRS Spring Meeting*, San Francisco, 2007 [MRS Symposium Proceedings Vol. 1017E, paper DD17.8]

324. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, and Yoshio Nishi, "Silicon-based Photonic Crystal Nanocavity Light emitters", *IEEE LEOS Annual Meeting*, Proceedings p.2 pp, Montreal, Canada, Nov. 2006

325. Andrei Faraon, Edo Waks, Dirk Englund, and Jelena Vuckovic, “Theoretical and experimental investigation of efficient photonic crystal cavity-waveguide couplers,” *IEEE LEOS Annual Meeting*, Proceedings pp. 2, Montreal, Canada, Nov. 2006

326. Hatice Altug, Dirk Englund and Jelena Vuckovic, "High Modulation Speed Photonic Crystal Nanocavity Array Laser," *Proceedings of 2006 Conference on Lasers & Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS)*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article CMKK5, DOI: 10.1109/CLEO.2006.4627798, May 2006.

327. Nathan Jukam, Cristo Yee, Ilya Fushman, Jelena Vuckovic, and Mark S. Sherwin, "Patterned Femtosecond Laser Excitation of Terahertz Radiation in GaAs Photonic Crystals," *Proceedings of 2006 Conference on Lasers & Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS)*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article CMS5, May 2006.

328. Dirk Englund, Stephan Goetzinger, Andrei Faraon, Jelena Vuckovic, and Yoshihisa Yamamoto, "An Efficient Source of Single Indistinguishable Photons," *Proceedings of 2006 Conference on Lasers & Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS)*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article JTuC4, DOI: 10.1109/CLEO.2006.4628587, May 2006.

329. Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Design and Experimental Characterization of Photonic Crystal Cavities with Embedded Colloidal Quantum Dots," *Proceedings of 2006 Conference on Lasers & Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS)*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article QWD4, DOI: 10.1109/CLEO.2006.4629162, May 2006.

330. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, and Yoshio Nishi, "Two Dimensional Porous Silicon Photonic Crystal Light Emitters," *Proceedings of 2006 Conference on Lasers & Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS)*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article CFI5, DOI: 0.1109/CLEO.2006.4627619, May 2006.

331. Edo Waks and Jelena Vuckovic, "Dipole Induced Transparency in Photonic Crystal Cavity Waveguide Systems," *Proceedings of 2006 Conference on Lasers & Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS)*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article JTuC6, DOI: 10.1109/CLEO.2006.4628589 May 2006.

332. Andrei Faraon, Edo Waks, Dirk Englund, Ilya Fushman, and Jelena Vuckovic, "Fourier Space Design of Efficient Photonic Crystal Cavity-Waveguide Couplers," *Proceedings of 2006 Conference on Lasers & Electro-Optics/Quantum Electronics and Laser Science Conference (CLEO/QELS)*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article QFA4, DOI: 10.1109/CLEO.2006.4628867, May 2006.

333. Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Coupling of PbS Quantum Dots to Photonic Crystal Cavities at Room Temperature," *SPIE Annual Meeting-Photonics West, Conference on Photonic Crystal Materials and Devices IV, Proceedings of the SPIE*, vol. 6128, Issue 1 pp. 612811-1-9, San Jose, CA, Jan. 2006.

334. Hatice Altug and Jelena Vuckovic, "Applications of Photonic Crystal Microcavity Arrays," *SPIE Annual Meeting-Photonics West, Conference on Photonic Crystal Materials and Devices IV, Proceedings of the SPIE*, vol. 6128 Issue 1 pp. 61280C-1-8, San Jose, CA, Jan. 2006.

335. H. Altug and J. Vuckovic, "Coupled Photonic Crystal Microcavity Array Laser," Proceedings of the *IEEE LEOS Annual Meeting,* Sydney, Australia, Proceedings pp. 543-544, Oct. 2005.

This paper also received the Newport-LEOS best student paper award.

336. M. F. Yanik, H. Altug, J. Vuckovic, and S. Fan, "Sub-micron all optical memory and large scale integration in photonic crystals," Proceedings of *CLEO Europe*, pp. 588, Munich, Germany, May 2005

337. E. Waks and J. Vuckovic, "Cavity-Waveguide Interaction in Photonic Crystals," *Conference on Lasers and Electro-Optics (CLEO) and Quantum Electronics and Laser Science Conference (QELS*), Baltimore, MD, *Technical Digest,* Vol. 1, p.16-18, May 2005.

338. D. Englund, D. Fattal, E. Waks, and J. Vuckovic, "Controlling Spontaneous Emission Rate in Solid State for Quantum Information Science," *Conference on Lasers and Electro-Optics (CLEO) and Quantum Electronics and Laser Science Conference (QELS*), Baltimore, MD, *Technical Digest,* Vol. 1, p.410-412, May 2005.

339. H. Altug and J. Vuckovic, "Polarization Control With Two-Dimensional Coupled Photonic Crystal Microcavity Arrays," *Conference on Lasers and Electro-Optics (CLEO) and Quantum Electronics and Laser Science Conference (QELS*), Baltimore, MD, *Technical Digest,* Vol. 1, p.418-420, May 2005.

340. Dirk Englund, David Fattal, Edo Waks, and Jelena Vuckovic, "Controlling Spontaneous Emission Rate in Solid State for Quantum Information Science," 69th *Annual Meeting of German Physical Society in International Year of Physics*, Book of abstract, section Q.67,.4, p.59, Berlin, Germany, March 2005.

341. H. Altug and J. Vuckovic, "Experimental Demonstration of the Slow Group Velocity of Light in Two-Dimensional Coupled Photonic Crystal Microcavity Arrays," *MRS Fall Meeting*, B4.7, Book of abstract p. 39, Boston, MA, November 2004.

342. H. Altug and J. Vuckovic, "Two-Dimensional Coupled Photonic Crystal Resonator Arrays," *Proc. International Quantum Electronics Conf. (IQEC)/Conference on Lasers and Electro-Optics (CLEO)*, p. 1500, San Francisco, CA, May 2004.

343. E. Waks, K. Inoue, C. Santori, D. Fattal, J. Vuckovic, G. Solomon, and Y. Yamamoto, "Quantum Cryptography With a Single Photon Source," *Proc. SPIE Conf. on Quantum Communications and Quantum Imaging*, San Diego, CA, Vol. 5161, pp. 76-86, Aug. 2003.

344. Scherer, T. Yoshie, M. Loncar, J. Vuckovic, D. Deppe, and K. Okamoto, "2-D Photonic Crystal Microcavities," *Digest of LEOS Summer Topical Meetings*, Vancouver, BC, Canada, pp.TuA3.1/47, July 2003.

345. Santori, D. Fattal, J. Vuckovic, G. S. Solomon, and Y. Yamamoto, "Indistinguishable Single Photons From a Single-Quantum-Dot Microcavity," *Technical Digest of the Quantum Electronics and Laser Science (QELS) Conference*, Baltimore, MD, pp. 930-931, June 2003.

346. Santori, D. Fattal, J. Vuckovic, G. S. Solomon, and Y. Yamamoto, "Indistinguishable Single Photons From a Single-Quantum-Dot Microcavity," *Proc. SPIE – Photonics West, Conference*: Laser Resonators and Beam Control, San Jose, CA, Vol. 4969, pp.156-166, Jan. 2003.

347. Scherer, J. Vuckovic, M. Loncar, T. Yoshie, and K. Okamoto, "Photonic Bandgap Microcavity Devices," *Technical Digest of the Optical Fiber Communication Conference (OFC 2003)*, Atlanta, GA, Vol. 2, pp. 490, March 2003.

348. J. Vuckovic, C. Santori, D. Fattal, M. Pelton, G. Solomon, B. Zhang, J. Plant, and Y. Yamamoto, "Single Photons and Entangled Photons From a Quantum Dot," *Proc. IEEE International Electron Devices Meeting (IEDM 2002)*, San Francisco, CA, pp. 87-90, December 2002.

349. M. Loncar, T. Yoshie, J. Vuckovic, A. Scherer, H. Chen, D. Deppe, P. Gogna, Y. Qiu, D. Nedeljkovic, and T. P. Pearsall, "Nanophotonics Based on Planar Photonic Crystals," *Proc. IEEE LEOS Annual Meeting*, Glasgow, UK, Vol. 2, pp. 671-672, Nov. 2002.

350. T. Yoshie, J. Vuckovic, M. Loncar, H. Chen, D. Deppe, and A. Scherer, "Localized Modes With High Quality Factor Defined by Two-Dimensional Photonic Crystal Cavities," *Photonic and Electromagnetic Crystals Conference (PECS IV)*, Los Angeles, CA, p.20, Oct. 2002.

351. M. Loncar, J. B. Williams, J. Vuckovic, H. Mabuchi, and A. Scherer, "Experimental and Theoretical Characterization of H2 PC Cavities Defined in Silicon on Insulator," *Photonic and Electromagnetic Crystals Conference (PECS IV)*, Los Angeles, CA, p.61, Oct. 2002.

352. Scherer, T. Yoshie, M. Loncar, J. Vuckovic, O. Painter, and D. Deppe, "Design, Fabrication, and Characterization of Photonic Crystal Nanocavities," *Photonic and Electromagnetic Crystals Conference (PECS IV)*, Los Angeles, CA, p.6, Oct. 2002.

353. G. S. Solomon, M. Pelton, J. Vuckovic, and Y. Yamamoto, "Single Optical Mode-Spontaneous Emission Coupling of a Quantum Dot in a Three-Dimensional Microcavity," *Proc. MBE-XII Conference*, San Francisco, CA, pp. 243-244, Sept. 2002.

354. J. Vuckovic, T. Yoshie, M. Loncar, H. Mabuchi, and A. Scherer, "Nano-Scale Optical and Quantum Optical Devices Based on Photonic Crystals," *Proc. IEEE Conference on Nanotechnology (IEEE-NANO 2002)*, Washington, DC, pp. 319-321, Aug. 2002.

355. T. Yoshie, J. Vuckovic, M. Loncar, A. Scherer, H. Chen, and D. Deppe, "Optical Characterization of High Quality Two Dimensional Photonic Crystal Cavities," *Technical Digest of the Conference on Lasers and Electro-Optics (CLEO 2002)*, Long Beach, CA, Vol. 1, pp. 191, May 2002 and *Technical Digest of the Quantum Electronics and Laser Science Conference (QELS 2002)*, Long Beach, CA, Vol. 1, pp. 75-76, May 2002.

356. M. Pelton, C. Santori, G. S. Solomon, Y. Yamamoto, J. Vuckovic, and A. Scherer, "An Efficient Source of Single Photons: A Single Quantum Dot in a Micropost Microcavity," *Technical Digest of the Quantum Electronics and Laser Science Conference (QELS 2002)*, Long Beach, CA, Vol. 1, pp. 97-98, May 2002.

357. J. Vuckovic and A. Scherer, "Optimization of the Q Factor in Optical Microcavities Based on Free Standing Membranes," *Proc. SPIE - Photonics West Meeting: Photonic Bandgap Materials and Devices*, San Jose, CA, Vol. 4655, pp. 192-199, Jan. 2002.

358. J. Vuckovic, M. Loncar, T. Yoshie, M. Armen, J. Williams, H. Mabuchi, and A. Scherer, "High-Q Optical Nanocavities in Planar Photonic Crystals," *Proc. SPIE, Photonics West Meeting: Laser Resonators and Beam Control V*, San Jose, CA, Vol. 4629, pp. 190-199, Jan. 2002.

359. Scherer, J. Vuckovic, M. Loncar, T. Yoshie, and O. Painter, "Photonic Crystal Nanocavities and Waveguides," *Proc. International Semiconductor Device Research Symposium*, Washington, DC, pp. 511-513, Dec. 2001.

360. Scherer, J. Vuckovic, M. Loncar, T. Yoshie, and O. Painter, "Photonic Crystals and Their Applications to Efficient Light Emitters," *Proc. IEEE LEOS Annual Meeting*, San Diego, CA, Vol. 2, pp. 736-737, Nov. 2001.

361. M. Loncar, D. Nedeljkovic, T. P. Pearsall, J. Vuckovic, A. Scherer, S. Kuchinsky, and D. C. Allan, "Experimental Characterization of Dispersion Properties of the Leaky Modes in Planar Photonic Crystal Waveguide," *Proc. IEEE LEOS Annual Meeting*, San Diego, CA, Vol. 1, pp. 273-274, Nov. 2001.

362. M. Loncar, D. Nedeljkovic, T. P. Pearsall, J. Vuckovic, A. Scherer, S. Kuchinsky and D. C. Allan, "Experimental Characterization of Dispersion Properties of the Leaky Modes in Planar Photonic Crystal Waveguide," *Proc. 27th European Conference on Optical Communication*, Amsterdam, Netherlands, Vol. 6, pp. 28-29, Sept. 2001.

363. Scherer, J. Vuckovic, M. Loncar, T. Yoshie, and O. Painter, "Photonic Crystal Light Sources and Waveguides," *Technical Digest of Conference on Lasers and Electro-Optics/ Pacific Rim (CLEO/PR 2001)*, Chiba, Japan, Vol. 1, pp. I20-I21, July 2001.

364. Scherer, O. Painter, J. Vuckovic, M. Loncar, T. Yoshie, D. Dapkus, I. Kim, and T. Pearsall, "Photonic Crystal Cavities and Waveguides," *Digest of the Device Research Conference (DRC)*, Notre Dame, IN, pp. 115-118, June 2001.

365. M. Loncar, D. Nedeljkovic, T. Doll, J. Vuckovic, A. Scherer, and T. P. Pearsall, "Waveguiding in Planar Photonic Crystals," *Proc. SPIE Photonics West: Silicon-Based and Hybrid Optoelectronics III*, San Jose, CA, Vol. 4293, pp. 94-99, Jan. 2001.

366. J. Vuckovic, M. Loncar, and A. Scherer, "Design of Photonic Crystal Optical Microcavities," *Proc. SPIE Photonics West: Physics and Simulation of Optoelectronic Devices VIII*, San Jose, CA, Vol. 4283, pp. 415-419, Jan. 2001.

367. J. Vuckovic, M. Loncar, H. Mabuchi, and A. Scherer, "Photonic Crystal Microcavities for Strong Coupling Between an Atom and the Cavity Field," *Proc. IEEE LEOS Annual Meeting*, Rio Grande, Puerto Rico, Vol. 2, pp. 840-841, Nov. 2000.

368. M. Loncar, J. Vuckovic, and A. Scherer, "Modal Analysis of Waveguides Based on Triangular Photonic Crystal Lattice," *Proc. IEEE LEOS Annual Meeting*, Rio Grande, Puerto Rico, Vol. 2, pp. 844-845, Nov. 2000.

369. J. Vuckovic, M. Loncar, O. Painter, and A. Scherer, "Surface Plasmon Enhanced LED," *Technical Digest of Quantum Electronics and Laser Science Conference (QELS 2000*), San Francisco, CA, Vol. 40, pp. 41-42, May 2000, and *Technical Digest of Conference on Lasers and Electro-Optics (CLEO 2000)*, San Francisco, CA, Vol. 39, pp 123-124, May 2000.

370. O. Painter, J. Vuckovic, and A. Scherer, "Two Dimensional Photonic Crystal Nanocavities for Light Localization," *Technical Digest of Quantum Electronics and Laser Science Conference (QELS 2000)*, San Francisco, CA, Vol. 40, pp. 40- 41, May 2000, and *Technical Digest of Conference on Lasers and Electro-Optics (CLEO 2000)*, San Francisco, CA, Vol. 39, pp 122-123, May 2000.

371. A. Scherer, M. Loncar, O. Painter, A. Husain, J. Vuckovic, and T. Doll, "Photonic Crystal Lasers and Waveguides," *Proc. SPIE Photonics West: Physics and Simulation of Optoelectronic Devices VIII*, San Jose, CA, Vol. 3944, pp. 2-8, Jan. 2000.

372. J. Vuckovic, O. Painter, Y. Xu, A. Yariv, and A. Scherer, "Finite-Difference Time-Domain Calculation of the Spontaneous Emission Coupling Factor in Optical Microcavities," *Proc. SPIE Photonics West: Micro and Nano-Photonic Materials and Devices*, San Jose, CA, Vol. 3937, pp. 2-11, Jan. 2000.

373. A. Scherer, O. Painter, A. Husain, J. Vuckovic, D. Dapkus, and J. O'Brien, "Photonic Crystal Nanocavity Lasers," *Int'l J. High Speed Electronics and Systems*, Vol. 10, No. 1, pp. 387-391 (Proc. Advanced Workshop on Frontiers in Electronics, Grenoble, France, May-June 1999).

374. J. S. Vuckovic and B. S. Vucetic, "Maximum-Likelihood Decoding of Reed Solomon Codes," *Proc. IEEE International Symp. on Information Theory (ISIT)*, Ulm, Germany, pp. 400-400, June-July 1997.

CONTRIBUTED CONFERENCE PAPERS WITHOUT PROCEEDINGS

375. Marina Radulaski, "SiC nonlinear optics and quantum photonics," SPRC Annual Symposium, Stanford, CA, Sept. 2015

376. Gary Shambat, Jelena Vuckovic, "Photonic crystal nanocavity lasers and LEDs," *SPRC Annual Symposium*, Stanford, CA, Sept. 2012

377. Sonia Buckley, Kelley Rivoire, Jelena Vuckovic, "Doubly resonant photonic crystal cavities," *SPRC Annual Symposium*, Stanford, CA, Sept. 2010 [poster]

378. Szu-Lin Cheng, Gary Shambat, Jesse Lu, Krishna Saraswat, Yoshio Nishi, Jelena Vuckovic, "Electroluminescence from GeSi LED," *MARCO IFC Annual Meeting*, Atlanta, GA, Oct. 2009

379. Yiyang Gong, Selçuk Yerci, Rui Li, Luca Dal Negro, and Jelena Vučković, "Enhanced Light Emission from Erbium Doped Silicon Nitride in Plasmonic Metal-Insulator- Metal Structures," *SPRC Annual Symposium*, Sept. 2009 [poster]

380. Jesse Lu and Jelena Vuckovic,"Electromagnetic Inverse Design," *SPRC Annual Symposium*, Sept. 2009 [poster]

381. Gary Shambat, Jesse Lu, Yiyang Gong, Jelena Vuckovic, "Fiber taper coupling to photoluminescent erbium-doped amorphous silicon nitride photonic crystal cavities," *SPRC Annual Symposium*, Sept. 2009 [poster]

382. Kelley Rivoire, Ziliang Lin, Fariba Hatami, W. Ted Masselink, Jelena Vuckovic, "Second Harmonic generation in Gallium Phosphide photonic crystal nanocavities with ultralow continuous wave pump power," *SPRC Annual Symposium*, Sept. 2009 [poster]

383. Arka Majumdar, Andrei Faraon, Hyochul Kim, Pierre Petroff and & Jelena Vuckovic, "Fast Electrical Control via Quantum Confined Stark Effect of a Strongly Coupled Quantum Dot in a Nano-Resonator," *SPRC Annual Symposium*, Sept. 2009

384. Maria Makarova, Yiyang Gong, Selcuk Yerci, Rui Li, Luca Dal Negro, Jelena Vuckovic Differential gain at 1.54 μm in Er-doped silicon nitride coupled to photonic crystal cavity, *SPRC Annual Symposium*, Sept. 2009 [poster]

385. Yiyang Gong, Jelena Vuckovic, "Silicon CMOS compatible Photonic Crystal Light emitters", *MARCO IFC Annual Meeting*, Atlanta, GA, Oct. 2008

386. Andrei Faraon, Dirk Englund, Ilya Fushman, Jelena Vuckovic, "Single photon nonlinear optics with quantum dots in photonic crystal resonators," *SPRC Annual Symposium*, Sept. 2008

387. Andrei Faraon, Dirk Englund, Ilya Fushman, Jelena Vuckovic, "Single photon nonlinear optics with quantum dots in photonic crystal resonators," *SPRC Annual Symposium*, Sept. 2008 [poster]

388. Kelley Rivoire, Andrei Faraon, and Jelena Vuckovic, "Gallium phosphide photonic crystal cavities in the visible," *SPRC Annual Symposium*, Sept. 2008 [poster]

389. Maria Makarova, Jelena Vuckovic, "Silicon CMOS compatible Photonic Crystal Light emitters", *MARCO IFC Annual Meeting*, Atlanta, GA, Oct. 2007

390. Andrei Faraon, Dirk Englund, Ilya Fushman, Jelena Vuckovic, Nick Stoltz, Pierre Petroff, "Local Quantum Dot tuning on photonic crystal chips," *SPRC Annual Symposium*, Sept. 2007 [poster]

391. Dirk Englund, Ilya Fushman, Hatice Altug, Jelena Vuckovic, "Efficient ultrafast photonic crystal lasers in GaAs and InP," *SPRC Annual Symposium*, Sept. 2007 [poster]

392. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, and Yoshio Nishi, "Silicon-based Photonic Crystal Nanocavity Light emitters", *MARCO IFC Annual Meeting*, Atlanta, GA, Oct. 2006

393. Andrei Faraon, Edo Waks, Dirk Englund, and Jelena Vuckovic, "Theoretical and experimental investigation of efficient photonic crystal cavity-waveguide couplers," *SPRC Annual Symposium*, Stanford, CA, Sept. 2006

394. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, and Yoshio Nishi, "Silicon-based Photonic Crystal Nanocavity Light emitters", *SPRC Annual Symposium*, Stanford, CA, Sept. 2006

395. Hatice Altug, Dirk Englund, and Jelena Vuckovic, "Ultrafast Photonic Crystal Nanocavity Array Laser," *SPRC Annual Symposium*, Stanford, CA, Sept. 2006

396. Dirk Englund, Andrei Faraon, Jelena Vuckovic, "Generation and transfer of single photons on a photonic crystal chip," *SPRC Annual Symposium*, Stanford, CA, Sept. 2006

397. Dirk Englund, Stephan Goetzinger, Andrei Faraon, Jelena Vuckovic, and Yoshihisa Yamamoto, "An Efficient Source of Single Indistinguishable Photons," *Southwest Quantum Information and Technology*, Southwest Quantum Information and Technology, 8th Annual workshop, poster 23, Albuquerque, NM, March 2006.

398. D. Englund, D. Fattal, E. Waks, Y. Yamamoto, and J. Vuckovic, "Quantum Dot – Photonic Crystal Single Photon Sources*," IEEE/LEOS Semiconductor Laser Workshop*, Baltimore, MD, May 2005.

399. Edo Waks and Jelena Vuckovic, "Cavity-Waveguide Interaction in Photonic Crystals," *Southwest Quantum Information and Technology (SQUINT)* 2005, Tucson, AZ, Feb. 2005.

400. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, and Yoshio Nishi, "Two-Dimensional Porous Silicon Photonic Crystal Light Emitters," *SPRC Annual Symposium*, arXiv physics/ 0509178, Stanford, CA, Sept. 2005.

401. H. Altug and J. Vuckovic, "Coupled Photonic Crystal Nanocavity Array Laser," *SPRC Annual Symposium*, Poster Abstract (no pages), Stanford, CA, Sept. 2005.

402. Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Coupling of PbS Quantum Dots to Photonic Crystal Cavities at Room Temperature," *SPRC Annual Symposium*, Poster Abstract (no pages), Stanford, CA, Sept. 2005.

403. J. Vuckovic, M. Loncar, H. Mabuchi, and A. Scherer*,* "Quality Factors of Localized Defect Modes in Planar Photonic Crystal Structures," *PECS 3: Electromagnetic Crystal Structures - Euroconference on Electromagnetic Confinement*, St. Andrews, Scotland, UK, June 2001.