

ADDRESS

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EDUCATION

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 in Global Leadership, School of Engineering, Professor of Electrical Engineering and by courtesy of Applied Physics, Stanford University

A faculty member of the Ginzton Lab, PULSE Institute, SIMES Institute, Wu-Tsai Neuroscience Institute, and Bio-X

December 2018 – present: 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.

2002: Consultant, Luxtera Inc.

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

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.

RESEARCH ACTIVITIES & INTERESTS

Broad definition: experimental and theoretical research in nanophotonics and quantum photonics.

Topics include: Quantum optics, cavity QED, quantum information processing with semiconductor devices; nonlinear optics with nanophotonic structures; inverse nanophotonic design; integrated photonics; on chip laser driven particle accelerators; photonic biosensors.

PROFESSIONAL ACTIVITIES

Advisory roles and boards

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

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

Advisor, Alphabet X (2017-2019)

Scientific Advisory Board Member, Max Planck Institute of Quantum Optics (MPQ),
Munich, Germany, May 2015-December 2020

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

Stanford SystemX Board Member, 2015-present

Conference organization

International Organizing Committee Member, PECS XIII, March 28-31, 2022, Tokyo,
Japan

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

Associate Editor, *ACS Photonics*, January 2018-present

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

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

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

Topical Editor, *Nanophotonics*, May 2012-present

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

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

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

Panelist, 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), Stanford Nanoscience & Nanotechnology Student Society (2008-present), and Stanford EE Undergraduates Society FUSE (2014-present)

Panelist at various student and professional events

TEACHING AND COURSE DEVELOPMENT

Stanford University, 2003-present:

Introduced, developed, and taught one graduate and three undergraduate classes:

- “Advanced Topics in Optics and Quantum Optics: *Optical Microcavities*” (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): Associate Professor, Bioengineering, EPFL
2. Dirk Englund (PhD Appl. Phys., 2008): Associate Professor with tenure, 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): Lecturer, Technologico de Monterrey, Monterrey, Mexico
6. Yiyang Gong (PhD EE, 2010): Assistant Professor of Biomedical Engineering at Duke
7. Bryan Ellis (PhD EE, 2011): Senior Hardware Development Engineer, Infinera
8. Kelley Rivoire (PhD EE, 2012): Data Scientist, Stripe
9. Arka Majumdar (PhD EE, 2012): Assistant Professor of Electrical Engineering and Physics, University of Washington, Seattle
10. Gary Shambat (PhD EE, 2013): Hardware product lead, Lyft
11. Jesse Lu (PhD EE, 2013): Research Engineer, Stanford
12. Sonia Buckley (PhD Appl. Phys., 2014): Research Scientist, NIST, Boulder
13. Armand Rundquist (PhD EE, 2015): Laser Design Engineer, NeoPhotonics
14. Jan Petykiewitz (PhD EE, 2016): Hardware Engineer, Platform Optics Group, Google
15. Marina Radulaski (PhD Appl. Phys., 2016): Assistant Professor, ECE, UC Davis
16. Yousif Kelaita (PhD EE, 2018): Hardware Engineer, Google
17. Kevin Fischer (PhD EE, 2018): Software Engineer, Nines
18. Alexander Piggott (PhD EE, 2018): Silicon Photonics Senior Scientist, PointCloud
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): Software Engineer, Waymo
22. Neil Sapra (PhD Physics, 2020): Photonic Design Engineer, Ayar Labs
23. Rahul Trivedi (PhD EE, 2020): Postdoctoral Fellow, Max Planck Institute for Quantum Optics (MPQ), Munich, Germany

24. Daniil Lukin (PhD EE, expected 2022)
25. Alison Rugar (PhD Appl. Phys, expected 2022)
26. Jinhie Lee Skarda (PhD EE, expected 2022)
27. Geung-Ho Ahn (PhD EE, expected 2023)
28. Melissa Guidry (PhD APh, expected 2023)
29. Sattwik Deb Mishra (PhD EE, expected 2023)
30. Guillermo Angeris (PhD EE, expected 2024)
31. Alex White (PhD EE, expected 2024)
32. Joshua Yang (PhD EE, expected 2024)
33. Alex Hwang (PhD Appl. Phys., expected 2025)
34. Jakob Grzesik (PhD Mech. Eng., expected 2025)
35. Hope Lee (PhD Appl. Phys, expected 2025)

Present and former MSc students

1. Eliza Cornell, EE co-term MSc, 2018-2019; now a PhD student at Harvard
2. Guillermo Andres Angeris, EE co-term MSc, MSc thesis (co-advised with Stephen Boyd), 2017-present; now a PhD student at Stanford
3. Nicolas Manquest (MSc EE 2010); now a research engineer at Astrium, France

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): Associate Professor of Physics, University of Michigan
3. Erik Kim (2009-2011): Research Scientist, Synaptic
4. Michal Bajcsy (2010-2013): Assistant Professor, Institute for Quantum Computing (IQC) and Electrical and Computer Engineering, University of Waterloo, Canada
5. Tom Babinec (2012-2015): Research scientist, Harvard University
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, UC Berkeley
11. Jean-Philippe MacLean (2020): Scientist, GHGSat, Canada
12. Dries Vercruysse (2016-present)
13. Kiyoul Yang (2018-)
14. Shahriar Aghaeimeibodi (2020-)
15. Daniel Riedel (2020-)
16. Jesse Lu (2020-)

OTHER INTERESTS AND SKILLS

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

PUBLICATIONS

As of October 2020, >200 published in refereed journals. Work cited ~28800 times, h-index of 82 (Google Scholar)

17 book chapters

15 issued US patents, several pending

Over 300 invited talks, 32 plenary and keynote talks

(the list follows; selected publications available online on the website)

PUBLICATIONS LIST

REFEREED JOURNAL PUBLICATIONS

Submitted

1. “Optimal two-photon excitation of bound states in non-Markovian waveguide QED,” Rahul Trivedi, Daniel Malz, Shanhui Fan and Jelena Vuckovic, submitted to *Physical Review Letters* (2020)
2. “Few-particle scattering from localized quantum systems in spatially structured bosonic baths,” Rahul Trivedi, Kevin Fischer, Shanhui Fan, and Jelena Vuckovic, submitted to *New Journal of Physics* (2020)
3. “Integrated quantum photonics with silicon carbide: challenges and prospects,” Daniil M. Lukin, Melissa A. Guidry, and Jelena Vuckovic, invited perspective article in *Physical Review X Quantum* (2020)
4. “The crux of using the cascaded emission of a 3-level quantum ladder system to generate indistinguishable photons,” 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, submitted to *Physical Review Letters* (2020)
5. “A new heuristic for physical design,” Guillermo Angeris, Stephen Boyd, Jelena Vuckovic, submitted to *Applied Physics Review* (2020) [arXiv:2002.05644]
6. “Spin-allowed quantum emission from strain confinement in monolayer semiconductors,” Leo Yu, Minda Deng, Jingyuan Linda Zhang, Sven Borghardt, Beata Kardynal, Jelena Vučković, and Tony F. Heinz, submitted to *Nature Communications* (2020)
7. Alexander Y. Piggott, Logan Su, Jan Petykiewicz, and Jelena Vuckovic, “Fundamental limitations of imaging with evanescent waves,” submitted to *Physical Review X* (2018)

Published

1. “Quantum Simulators: Architectures and Opportunities,” 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, to appear in *Physical Review X Quantum* (2020) [arXiv:1912.06938]

2. “Development of Quantum Inter-Connects for Next-Generation Information Technologies,” 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, to appear in *Physical Review X Quantum* (2020) [arXiv:1912.06642]
3. “Continuous detection of glucose and insulin in live animals,” 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, accepted in *Nature Biomedical Engineering* (2020)
doi: <https://doi.org/10.1101/2020.01.22.916106>
4. 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,” accepted in *Physics Communications* (2020)
5. 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)
6. 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)
7. 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*, <https://dx.doi.org/10.1021/acsp Photonics.0c00833> (2020) [arXiv:2005.10385]
8. 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)
9. 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]
10. 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]

11. Ki Youl Yang, Jinjie Skarda, Michele Cotrufo, Avik Dutt, Geun Ho Ahn, Mahmoud Sawaby, Dries Vercruyssen, 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)
12. Logan Su, Dries Vercruyssen, Jinjie Skarda, Neil V. Sapiro, 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]
13. Alexander Y. Piggott*, Eric Y. Ma*, Logan Su*, Geun Ho Ahn, Neil V. Sapiro, Dries J.F. Vercruyssen, 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 (2020) <https://doi.org/10.1021/acsp Photonics.9b01540>
 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
14. 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*, A. E. Rugar et al., *Nano Letters* **20**, 1614-1619 (2020) doi: <https://doi.org/10.1021/acs.nanolett.9b04495> (2020)
15. 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]
16. 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)
17. 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)
18. Neil V. Sapiro, Ki Youl Yang, Dries Vercruyssen, 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*
19. Daniil Lukin, Constantin Dory, Melissa A. Guidry, Ki Youl Yang, Sattwik Deb Mishra, Rahul Trivedi, Marina Radulaski, Shuo Sun, Dries Vercruyssen, 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*.

20. U. Niedermayer, A. Adelman, R. Abmann, 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. Kurovka, 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. Saprà, 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]
21. Dries Vercrey, Neil V. Saprà, 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]
22. 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)
23. 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]
24. 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)
25. Constantin Dory, Dries Vercrey, Kiyoul Yang, Neil V. Saprà, 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)
26. 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)
27. Dries Vercrey, Neil Saprà, Logan Su, Rahul Trivedi, and Jelena Vuckovic, “Analytical level set fabrication constraints for inverse design” *Scientific Reports*, vol. 9, 8999 (2019)

28. 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)
29. Guillermo Angeris, Jelena Vuckovic, and Stephen Boyd, "Computational Bounds on Photonics Design," *ACS Photonics*, vol. 6, pp. 1232-1239 (2019)
30. 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)
31. 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)
32. Neil V. Saprà, Dries Verduyck, 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]
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2. 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
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3. 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
4. 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
5. 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)
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7. Jelena Vuckovic, "Quantum nanophotonics," *Azoquantum.com (Quantum science thought leaders series)*, June 2011
8. Dirk Englund, Andrei Faraon, Ilya Fushman, and Jelena Vuckovic, "Single photon nonlinear optics on photonic crystal chips," *SPIE Newsroom*, January 2009
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1. Jelena Vuckovic, Rahul Trivedi, "Introduction to optical cavities," *American Institute of Physics Publishing* (2020)

BOOK CHAPTERS

1. Rahul Trivedi, Daniil Lukin, Jelena Vuckovic, "Quantum optics and nonclassical light generation," invited book chapter in *Proceedings of International 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)
2. 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* (2019)
3. Marina Radulaski, Jelena Vučković, "Quantum Photonics Incorporating Color Centers in Silicon Carbide and Diamond," *Proceedings on Latest achievements in Physics on the Occasion of the 20th Anniversary of the "Prof. Dr Marko V. Jaric" Foundation* [book chapter] (2018)
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6. "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)
7. "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)
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9. 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)
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14. 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)
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5. Rahul Trivedi, Logan Su, Jelena Vuckovic, "Fast and Accurate Large-Scale Optimization of Metasurfaces", Stanford disclosure S18-558 (Jan 2019)

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7. Daniil Lukin, Constantin, Dory, Jelena Vuckovic, "Silicon-Carbide-on-Insulator (SiCOI)," Stanford disclosure S18-553, US Provisional Patent 62/811939 filed March 2019
8. Tom Soh, Jelena Vuckovic Amani Hariri, Constantin Dory, Alyssa Cartwright, "Optical real-time biosensor," U.S. Provisional Application No. 62/750,056 filed October 2018 (Stanford Disclosure S18-455)
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11. Logan Su, Alexander Piggott, Jelena Vuckovic, "Wavelength-demultiplexing grating couplers," provisional patent 62/518,195 filed, June 12 2017 (Stanford disclosure S17-214)
12. Gary Shambat, Jelena Vuckovic, "Biological cell nanocavity probes," US patent 9310352, Issued April 12, 2016 (Stanford disclosure S12-312)
13. 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)
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15. 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)
16. 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)
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21. 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).
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24. 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)
25. 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)
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27. A. Scherer and J. Vuckovic, "High Resolution Electron Projection," U.S. Patent No. 6,515,292, Issued February 4, 2003.
28. 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.
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PLENARY AND KEYNOTE TALKS

1. 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]
2. Jelena Vuckovic, *Annual Spring Meeting of the German Physical Society DPG*, Berlin, Germany, March 2021 [plenary]
3. Jelena Vuckovic, *Photonics Online Meetup*, January 2021 [tutorial]
4. Jelena Vuckovic, *Quantum 2020*, October 19-22 2020 [plenary]
5. Jelena Vuckovic, "Optimized Photonics," *14th Pacific Rim Conference on Lasers and Electro-Optics (CLEO Pac Rim)*, Sydney, Australia, Aug 2-6, 2020 [tutorial]
6. Jelena Vuckovic, *OSA Advanced Photonics Conference*, Montreal, Canada, July 13-16, 2020 [plenary]

7. Jelena Vuckovic, *Conference on Defects in Solids for Quantum Technologies (DSQT2020)*, Stockholm, Sweden, June 8-12, 2020 [keynote]
8. Jelena Vuckovic, *Quantum Technologies conference at SPIE Photonics Europe*, Strasbourg, France, March 29 - April 2 2020 [plenary]
9. Jelena Vuckovic, *Aspen Winter Conference on Quantum Information and Systems for Fundamental Physics*, Aspen, CO, Feb. 17-22, 2020 [public lecture]
10. Jelena Vuckovic *Micro- and Nanophotonics Days 2019*, Centre for Nanoscience and Nanotechnology of the CNRS, Paris Saclay, November 20-21, 2019 [keynote]
11. Jelena Vuckovic, *IEEE Photonics Society Annual Meeting (IPC)*, San Antonio, TX, October 2019 [plenary]
12. Jelena Vuckovic, *Frontiers in Optics - Laser Science (FiO-LS) Conference*, Washington, D.C. September 16-19, 2019 [visionary talk]
13. Jelena Vuckovic, *2019 SPIE Optics + Photonics meeting*, August 2019 [plenary]
14. Jelena Vuckovic, 10th International Conference on Metamaterials, Photonic Crystals and Plasmonics (META 2019) will be held in Lisbon - Portugal, July 23-26, 2019 [keynote]
15. Jelena Vuckovic, *ICOLS 2019*, Queenstown, New Zealand, July 8-12, 2019
16. Jelena Vuckovic, a plenary presentation at the *Central European Workshop on Quantum Optics (CEWQO)*, Paderborn, Germany, June 3rd - 7th, 2019 [plenary]
17. Jelena Vuckovic, *IEEE New Frontiers in Computing (NFIC) Conference*, Stanford University, May 14, 2019 [keynote]
18. Jelena Vuckovic, "Quantum Photonics with Defect Centers," *European Conference on Atomic, Molecular and Optical Physics (ECAMP-13)*, Florence, Italy April 8-12, 2019 [plenary]
19. Jelena Vuckovic, *Quantum Innovators in Science and Engineering workshop, the Institute for Quantum Computing (IQC)*, University of Waterloo, ON, Canada, Oct. 2018 [plenary]
20. Jelena Vuckovic, *Opportunities for Quantum Technologies 2018 (Quantum Opportunities 2018)*, *Quantum Tech Dialogue*, Vancouver, Canada, October 3rd, 2018 [keynote]
21. 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]
22. Jelena Vuckovic, *Workshop on "The Quantum Internet: Charting the Critical Path,"* University of Toronto, Toronto, CA, Jun 21-23, 2018 [keynote]
23. Jelena Vuckovic, "Quantum hardware," *International Foresign Forum: Quantum Computing and Silicon Photonics*, Taipei, Taiwan, June 2018 [keynote]
24. Jelena Vuckovic, The DATE (Design, Automation, Test and Embedded Systems) Conference , NanoDay, Dresden, Germany, March 21, 2018 [keynote]

25. Jelena Vuckovic, *Symposium on "Advancing Electronics,"* Dresden excellence cluster "Center for Advancing Electronics Dresden (CfAED)", Dresden, Germany, 19 March 2018 [keynote]
26. Jelena Vuckovic, "Quantum nanophotonics," *CLEO (Conference on Lasers and Electro-Optics)*, San Jose, CA, June 5-10, 2016 [plenary]
27. Jelena Vuckovic, "Inverse design and implementation of compact and efficient nanophotonic circuits," *SPIE Optical Microlithography*, San Jose, CA, 21 - 25 February 2016 [keynote]
28. 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]
29. Jelena Vuckovic, "Quantum Nano-Optics," *Annual Meeting of the German Physical Society (DPG)*, March 19, 2014 [plenary]
30. 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
31. 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]
32. 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]
33. 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]
34. 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

35. Jelena Vuckovic, *Conference on Lasers and Electro-Optics Europe (CLEO/Europe) and the European Quantum Electronics Conference (EQEC)*, Munich, Germany, June 20 - 24, 2021
36. 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
37. Jelena Vuckovic, *Integrated Optics: Devices, Materials, and Technologies conference, Photonics West*, San Francisco CA, March 2021
38. Jelena Vuckovic, *Photonics Spectra Conference*, January 2021,
39. Jelena Vuckovic, *MRS 2020 Fall meeting*, Boston, USA, November 29 - December 4, 2020

40. Jelena Vuckovic, *IEEE Photonics Conference (IPC2020)*, Vancouver, Canada
27 September - 1 October 2020
41. Jelena Vuckovic, *Frontiers in Optics/ Laser Science*, Washington DC, September 13-17,
2020
42. Dries Vercruyse, Jelena Vuckovic, *IEEE Research and Applications of Photonics in
Defense (RAPID) Conference*, Sandestin Beach, Florida, Aug. 10-12, 2020
43. Guillermo Angeris, Rahul Trivedi, Logan Su, Stephen Boyd, Jelena Vuckovic,
“Computational bounds of photonic devices,” *META2020*, Warsaw, Poland, July 20-23,
2020
44. Jelena Vuckovic, “Connecting and scaling semiconductor quantum photonic systems,”
Photonics for Quantum (PfQ2), Rochester Institute of Technology (RIT), June 2020
45. Jelena Vuckovic, “Quantum integrated photonics,” *CLEO Science and Innovations*, San Jose,
CA, May 2020
46. Jelena Vuckovic, “From inverse design to implementation of practical photonics,” *MRS
Spring Meeting*, Phoenix, Arizona, April 13 -17, 2020
47. Logan Su, Jelena Vuckovic, *2020 International Applied Computational Electromagnetics
Society (ACES) Symposium*, March 22-26, 2020, in Monterey, California, USA
48. 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
49. Jelena Vuckovic, *APS March Meeting*, Denver, CO, March 2-6, 2020
50. Jelena Vuckovic, *Aspen Winter Conference on Quantum Information and Systems for
Fundamental Physics*, Aspen, CO, Feb. 17-22, 2020
51. Jelena Vuckovic, Rahul Trivedi, Winter Colloquium on the Physics of Quantum Electronics
(PQE), Snowbird, UT, Jan 5-10, 2020.
52. Kiyoul Yang, Jinjie Skarda, Jelena Vuckovic, “From inverse design to implementation of
practical photonics,” *IEEE/ACM ICCAD Conference*, Westminster, CO, Nov. 2019
53. Logan Su, Jelena Vuckovic, Workshop on “New modelling challenges in optical
communications,” *European Conference on Optical Communication 2019, ECOC2019*, Dublin,
Ireland, Sept. 2019
54. 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*
55. "Inverse design and demonstration of laser driven particle accelerators on chip, Neil V.
Sapra, Ki Youl Yang, Dries J. F. Vercruyse, Kenneth Liddle, Dylan Black, Logan Su, Rahul
Trivedi, Yu Miao, Olav Solgaard, Bob Byer, Jelena Vučković, *SPIE Optics + Photonics*, San
Diego, CA, Aug. 2019
56. Jelena Vuckovic, *SPIE Optics & Photonics conference on “Quantum Nanophotonics
Materials, Devices and Systems*, San Diego , CA August 11-15, 2019

57. Jelena Vuckovic, *Quantum Symposium at the OSA Advanced Photonics Congress*, San Francisco, CA, July 29-Aug. 1, 2019
58. Kiyoul Yang, Jelena Vuckovic, *O5 (Optical Passive Devices and Modules) Conference, OECC/PSC 2019*, Fukuoka, Japan, July 7-11, 2019
59. Logan Su, Jelena Vuckovic, *IEEE Photonics Society, Summer Topical Meeting*, Ft. Lauderdale, Florida, July 8-10, 2019
60. 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
61. Constantin Dory, Jelena Vuckovic, *63rd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*, Minneapolis, MN, 28-31 May, 2019
62. Jelena Vuckovic, KITP conference *Exploring Open Quantum Systems in Quantum Simulators*, KITP (Kavli Institute for Theoretical Physics), UCSB, CA April 29 - May 3, 2019
63. 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
64. 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
65. 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
66. Shuo Sun, Jelena Vuckovic, *49th Winter Colloquium on the Physics of Quantum Electronics (PQE-2019)*, Snowbird, UT, January 6-11, 2019
67. Jelena Vuckovic, *OSA Laser Congress*, Boston, MA, November 4-8, 2018
68. 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.
69. Jelena Vuckovic, “Connecting quantum systems through optimized photonics,” *Frontiers in Optics/Laser Science (FiO/LS)*, Washington DC, September 2018
70. 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
71. Jelena Vuckovic, “Connecting quantum systems through optimized photonics,” *Gordon Research Conference on Quantum Science*, Stonehill College, Easton, MA, July 29 - August 3, 2018

72. 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
73. Jelena Vuckovic, *10th international Quantum Dot Conference – QD2018*, Toronto, ON, Canada, June 25-29, 2018
74. 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
75. Jelena Vuckovic, *Conference on Challenges in Quantum Information Science (CQIS2018)*, National Institute of Informatics (NII), Tokyo, Japan, April 2018
76. Jelena Vuckovic, *NIM Conference on Resonator QED*, Munich, Germany, August 29 - September 1, 2017
77. Jelena Vuckovic, *ETH 2017 Monte Verita Meeting on "Frontiers in Quantum Nanophotonics,"* Monte Verita, Switzerland, August 20-25, 2017
78. Jelena Vuckovic, "Quantum Nanophotonics," *Metamaterials, Metadevices, and Metasystems Conference, SPIE Nanoscience + Engineering Symposium*, San Diego, CA, Aug. 6-10, 2017
79. Tomas Sarmiento, Jelena Vuckovic, *IEEE Summer Topical Meeting*, San Juan, Puerto Rico, July 2017
80. Jelena Vuckovic, *23th International Conference on Laser Spectroscopy (ICOLS-17)*, Arcachon, France, July 2 - 8, 2017
81. Jelena Vuckovic, "Inverse design and implementation of optical structures" *International Conference on Computation Photography (ICCP 2017)*, Stanford, May 12-14, 2017
82. 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
83. Linda Zhang, Jelena Vuckovic, "Quantum nanophotonics," *Entangled photon and nonclassical light session, SPIE Defense and Commerce conference*, Anaheim, California, April 9-13, 2017
84. 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 ¹
85. 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
86. Kai Mueller, Jelena Vuckovic, *Nonlinear Optics and Excitation Kinetics in Semiconductors (NOEKS-13)*, Dortmund, Germany, October 9-13, 2016
87. Jelena Vuckovic, "(Quantum) nanophotonics: from inverse design to implementations," *PECS XII*, University of York, UK, July 18-21 2016

88. Jelena Vuckovic, Workshop on “Attosecond Non-linear Optics”, *CLEO/QELS*, San Jose, CA, June, 2016.
89. Kevin Fischer, Jelena Vuckovic, "Strongly Coupled Quantum Dot-Nanocavity Systems" *APS March Meeting*, Baltimore, MD, March 14-18, 2016
90. 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
91. Alexander Piggott, Jelena Vuckovic, “Inverse nanophotonic design,” *IEEE Photonics Conference (IPC)*, Reston, VA, 4-8 October 2015
92. Jelena Vuckovic, “Quantum Nanophotonics,” *Fundamental Optical Processes in Semiconductors (FOPS)*, Breckenridge, Colorado, August 2-7, 2015
93. 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
94. 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
95. 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.
96. Jelena Vuckovic, *Atomic Physics Gordon Conference*, Salve Regina University, Newport, RI June 14 - 19, 2015.
97. Jelena Vuckovic, *Photonics North 2015, Special Symposium on Quantum Information with Atoms, Molecules, and Photons*, Ottawa June 9th to 11th, 2015
98. 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
99. 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
100. 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
101. Arka Majumdar, Armand Rundquist, Sonia Buckley, Jonghwan Kim, Sanfeng Wu, 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

102. 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.
103. 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
104. 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
105. Jelena Vuckovic, *Symposium on Quantum Dot and Nanostructures, Photonics West*, San Francisco, February 1 – 6, 2014
106. Thomas Babinec, Jelena Vuckovic, *PQE2014, "Cavity enhanced light-matter interactions"*, Snowbird, UT, January 5-9, 2014
107. 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
108. Tomas Sarmiento, Jelena Vuckovic, *SemiconNano2013, 4th International Workshop on Epitaxial Growth and Fundamental Properties of Semiconductor Nanostructures*, Lake Arrowhead, CA, Oct. 2013
109. Jelena Vuckovic, "Optical nanocavities: from light sources to single cell probes," *IEEE Photonics Conference 2013*, Bellevue, Washington, September 2013
110. 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
111. Jelena Vuckovic, "Cavity QED with quantum dots in photonic crystals," *Conference on Resonator QED*, Munich, Germany, September 2013
112. 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
113. 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
114. 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
115. 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

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116. 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
 117. 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
 118. 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
 119. Jelena Vuckovic, "Photonic crystal nanocavity lasers and modulators," *IEEE Photonics Conference*, Burlingame, CA, Sept. 23-27, 2012
 120. Gary Shambat, Jelena Vuckovic, "Ultrafast photonic crystal single mode LED," *International Conference on Solid State Devices and Materials (SSDM)*, Kyoto, Japan, Sept. 2012
 121. 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
 122. Jelena Vuckovic, "Nanophotonics for quantum optics", *OSA Integrated Photonics Research, Silicon and Nano-Photonics (IPR)*, Colorado Springs, Colorado June 17-22, 2012
 123. 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
 124. 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
 125. Jelena Vuckovic, "Ultra-low threshold and high speed electrically pumped photonic crystal nanocavity lasers and LEDs," *CLEO*, San Jose, CA, May 2012
 126. 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
 127. 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
 128. 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

129. 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.
130. 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
131. Jelena Vuckovic, "(Solid state) cavity QED and applications" *Gordon Conference on Atomic Physics*, Mount Snow Resort, West Dover, VT, June 26-July 1, 2011
132. 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
133. 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
134. Jelena Vuckovic, IEEE 2011 Winter Topical "Low dimensional Nanostructures and Subwavelength Photonics," Keystone, Colorado, Jan 10-12, 2011 [invited tutorial]
135. Jelena Vuckovic, "Silicon nanocavity based light sources," *MRS Fall Meeting*, Boston, November 2010
136. 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.
137. 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.
138. 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
139. 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.
140. 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
141. 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
142. 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
 143. 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
 144. 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.
 145. 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
 146. 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
 147. 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
 148. 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
 149. 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.
 150. 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)
 151. 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
 152. 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

153. 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
154. Dirk Englund, Jelena Vuckovic, “Classical and quantum light sources based on photonic crystals,” *SPIE Optics and Photonics Meeting*, San Diego, Aug. 10-14, 2008
155. 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
156. 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
157. 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
158. 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
159. 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
160. 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
161. Jelena Vuckovic, Hatice Altug, Dirk Englund, and Bryan Ellis, “Coupled photonic crystal nanocavity arrays,” *CLEO/EUROPE-IQEC 2007*, Munich, Germany, 17 – 22 June 2007
162. 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.
163. Hatice Altug, Dirk Englund and Jelena Vučković, “High Speed Dynamics of Photonic Crystal Nanocavity Laser,” *IEEE LEOS Annual Meeting*, Montreal, Canada, Nov. 2006
164. 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.
165. Edo Waks, Dirk Englund, Andrei Faraon, Ilya Fushman, Jelena Vuckovic “Nanophotonic

- devices for quantum information processing,” *Third Feynman Festival*, University of Maryland, August 2006.
166. 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.
 167. 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.
 168. 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.
 169. 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.
 170. 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.
 171. 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.
 172. 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.
 173. Edo Waks, Dirk Englund, David Fattal, and Jelena Vuckovic, “Photonic-crystal based single photon source,” *SPIE Annual Meeting*, San Diego, CA, July 2005
 174. Jelena Vuckovic, "Quantum Dot-Photonic Crystal Devices and Circuits for Quantum Information Processing," *Quantum Communications Research Conference (QCRC)*, Boulder, CO, June 1-3, 2005.
 175. 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.
 176. Jelena Vuckovic, "Photonic Crystal Devices for Quantum and Nanoscale Photonics," *American Physical Society (APS) March Meeting*, Los Angeles, CA, March 2005.
 177. Jelena Vuckovic, "Nanophotonic Devices for Quantum Information Science," *Gordon Research Conference on Quantum Information Science*, Ventura, CA, Feb. 2005.
 178. 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.
179. 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.
180. Jelena Vuckovic, David Fattal, Edo Waks, Charles Santori, Dirk Englund, Hatice Altug, and Yoshihisa Yamamoto, "Photonic crystal components for solid- state photonic quantum information systems," *European Materials Research Society (EMRS) Annual Meeting, Symposium on Nanophotonic Materials*, Strasbourg, France, May 2004.
181. 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.
182. 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.
183. 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.
184. 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.
185. 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.
186. 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.
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188. 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

189. Jelena Vuckovic, Summer School on “Wave propagation and control in complex media: From order to disorder” Cargèse, Corsica, France, May 10-14, 2021
190. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2021
191. Jelena Vuckovic, *Okinawa School in Physics: Coherent Quantum Dynamics' OIST Graduate University*, Okinawa, Japan, October 2021
192. Dries Verdecruysse, Jelena Vuckovic, 5th Summer School on Silicon Photonics, Ghent University Belgium, June 15-19, 2020
193. Jelena Vuckovic, *NanoQI'19 Summer School on "Nanotechnology meets Quantum Information,"* San Sebastian, Spain, July 22-26, 2019.
194. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2019
195. Jelena Vuckovic, *Photonics Bootcamp*, Google X, Mountain View, January 2019
196. 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)
197. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2018
198. Jelena Vuckovic, *Okinawa School in Physics: Coherent Quantum Dynamics' OIST Graduate University*, Okinawa, Japan, September 26 - October 5, 2017
199. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2017
200. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, June 2016
201. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2015
202. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2014
203. Jelena Vuckovic, *Ecole de Physique des Houches, Quantum Optics and Nanophotonics Summer School*, Les Houches, France, August 2013.
204. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2013
205. 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

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206. Jelena Vuckovic, *International Workshop on Structured Materials and Structured Light*, Majorana Center, Erice, Sicily, Italy, July 3-9, 2022
 207. 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
 208. Jelena Vuckovic, *16th Annual Spring Symposium of the IEEE SFBA Nanotechnology Council, "Quantum Computing: Nano based Devices, Challenges and Applications,"* November 2020
 209. Jelena Vuckovic, *Army Science Planning and Strategy Meetings (ASPSMs)*, Army Research Laboratory, Nov. 2020
 210. Jelena Vuckovic, *Workshop on Machine Learning and Optical Systems*, Boston Chapter of IEEE Photonics Society, Oct. 2020
 211. Jelena Vuckovic, *IBM Quantum Summit*, September 15-17, 2020
 212. Jelena Vuckovic, *Virtual Workshop on Quantum-Enabling Laser Technologies (QELT)*, Quantum Economic Development Consortium (QED-C), September 2020
 213. Jelena Vuckovic, *Optical Society of America Incubator Workshop on Flat Optics: Recent Advances and Future Opportunities*, Washington DC, February 2020
 214. Jelena Vuckovic, *Stanford Photonics Research Center (SPRC) Workshop on Novel Optics & Photonics Materials for New and Existing High-Volume Applications*, January 15, 2020
 215. Jelena Vuckovic, *Quantum Foundry Workshop*, U. Chicago and Argonne National Lab, Discovery Partners Institute, Jan 2020
 216. Jelena Vuckovic, *EU-US-Japan International Symposium on Quantum Technology (ISQT)*, Kyoto, Japan, December 16-17, 2019
 217. Logan Su, Jelena Vuckovic, *Workshop on Quantum and Topological Nanophotonics (QTN-2019)*, NTU, Singapore, December 12-14, 2019
 218. Jelena Vuckovic, *Symposium on 125 Years of Stanford Electrical Engineering*, Stanford University, Nov. 13, 2019
 219. Jelena Vuckovic, *AIM Photonics Members Meeting*, Cadence Design Systems, Inc., San Jose, CA, Oct. 2019
 220. Jelena Vuckovic, *NSF convergence workshop on quantum simulators*, National Science Foundation, Arlington, VA, Sept. 2019
 221. 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
 222. 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
 223. Jelena Vuckovic, *Symposium on "Diamond Photonics - Physics, Technologies and Applications"*, EPFL, Lausanne, Switzerland, May 19th- 22nd, 2019

224. Jelena Vuckovic, *System-X Spring Workshop*, Stanford University, May 2019
225. Jelena Vuckovic, *Electronic Materials Symposium*, Stanford University, May 10th 2019
226. Jelena Vuckovic, "Whats Next in Integrated Optics – Hot Topics at CLEO: 2019," *CLEO-QELS*, San Jose, CA, May 2019
227. Jelena Vuckovic, Workshop on “Will quantum computing actually work?!” *CLEO*, San Jose, May 2019
228. Jelena Vuckovic, *ARO workshop on attojoule photonics/optoelectronics*, Stanford, Feb. 28-March 1, 2019
229. Jelena Vuckovic, *Workshop on Emerging Directions and Opportunities in Quantum Science*, Kavli Institute for Theoretical Physics (KITP), Santa Barbara, Feb 22--24, 2019
230. Jelena Vuckovic, *Photonics for Quantum (P/Q) Workshop*, Rochester Institute of Technology, Rochester, NY, January 23-25, 2019
231. Jelena Vuckovic, *Quantum Physics of the Universe Summit (POTUS)*, Caltech-Google, January 12-14, 2019
232. Jelena Vuckovic, *Workshop on Advanced Data Center Architectures and Technologies*, Stanford, Dec. 2018
233. Marina Radulaski, Jelena Vuckovic, *Workshop on SiC quantum devices*, Royal Society, London, UK, Nov. 2018
234. Jelena Vuckovic, *System-X Fall Conference*, Stanford University, Nov. 2018
235. Jelena Vuckovic, *System-X Spring Conference*, Stanford University, May 2018
236. Shuo Sun, Jelena Vuckovic, *Annual Workshop for the Advanced Light Source Users* Lawrence Berkeley National Laboratory, Berkeley, CA, Oct. 2018
237. Jelena Vuckovic, *Second Meeting of the National Academies AMO2020 Decadal Survey Committee*, Washington, DC on September 19-20, 2018.
238. Jelena Vuckovic, *Industrial Technology Research Institute (ITRI)*, Hsinchu, Taiwan, June 2018
239. Alex Piggott, Jelena Vuckovic, *First North American Workshop on Silicon Photonics for High Performance Computing (SPHPC Workshop)*, Fort Collins, CO, May 17-18 (2018)
240. 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
241. Jelena Vuckovic, *BoydFest*, Stanford, March 2nd, 2018
242. Jelena Vuckovic, *Future of Photonics*, *US Technology Summit*, Huawei, Santa Clara, January 2018
243. Jelena Vuckovic, “Quantum light sources,” *Quantum Physics of the Universe Summit (POTUS)*, Caltech-SpaceX, January 12-14, 2018

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244. 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
 245. Jelena Vuckovic, “Quantum photonic networks,” *NSF-Convergence workshop on Quantum Elements of Secure Communication*, Washington, DC, Dec. 3-5, 2017
 246. Jelena Vuckovic, *Arbitrary and Reconfigurable Optics SPRC Workshop*, Stanford, November 2017
 247. Jelena Vuckovic, *System-X Fall Conference*, Stanford University, Nov. 2017
 248. Jelena Vuckovic, *System-X Spring Conference*, Stanford University, May 2017
 249. Jelena Vuckovic, *Starshot Lightsail Workshop, Breakthrough Initiative*, Caltech, Pasadena, Oct. 2017
 250. Vuckovic group, invited experimental demo at *Sci Foo (Science Foo Camp)*, Google/O’Reilly Media, Googleplex, Mountain View, CA, August 2017
 251. Jelena Vuckovic, *Single Photon Workshop 2017*, Boulder, Colorado, USA, July 31st - August 4th 2017
 252. Jelena Vuckovic, *PRACQSYS 17 (Principles and Applications of Control in Quantum Systems)*, University of Washington, Seattle, July 17-20, 2017
 253. Shuo Sun, Jelena Vuckovic, *Optical Society of America Incubator Workshop on Integrated Quantum Photonics with Quantum Dots*, Washington, DC, June 18-20, 2017
 254. Jelena Vuckovic, *Workshop on Modern Trends in Solid State Quantum Physics*, Institute of Science and Technology (IST), Austria, June 6-8, 2017
 255. Jelena Vuckovic, *System-X Fall Conference*, Stanford University, Nov. 2016
 256. Jelena Vuckovic, *System-X Conference, plenary sesion*, Stanford University, May 2016
 257. 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
 258. Marina Radulaski, Jelena Vuckovic, *First International Symposium on SiC Spintronics*, Vadstena, Sweden, June 15-17 (2015)
 259. Jelena Vuckovic, *System-X meeting*, May 2015
 260. Jelena Vuckovic, *Stanford University Photonics Retreat*, Pacific Grove, CA, on April 10-12, 2015
 261. Jelena Vuckovic, *Kick-off workshop of the European Cooperation in Science and Technology (EU COST) Action MP1403 Nanoscale Quantum Optics*, Belgrade, Serbia, April 2015
 262. Tom Babinec, Jelena Vuckovic, *Workshop on Quantum Plasmonics*, Benasque, Spain, March 2015
 263. Jelena Vuckovic, “Quantum technologies,” *Systems-X kick-off meeting*, Stanford, CA, Nov. 2014

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264. 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
 265. 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
 266. Jelena Vuckovic, *PRACQSYS 13 (Principles and Applications of Control in Quantum Systems)*, August 20-23, 2013, Monterey, CA
 267. 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
 268. Jelena Vuckovic, *2012 Karles Invitational Quantum Information Science and Technology Conference*, Naval Research Laboratory, Washinton DC, Aug 27-28, 2012
 269. Sonia Buckley, Jelena Vuckovic, "Gallium phosphide photonic crystal cavities for enhancing NV center emission," *Frontiers of Diamondoid Science*, Stanford University, Stanford, CA, June 2012.
 270. Gary Shambat, Jelena Vuckovic, *CIS Adcom Meeting*, Stanford University, May 2012
 271. Gary Shambat, Jelena Vuckovic, *CMOS Emerging Technologies Meeting*, Whistler, BC, June 2011
 272. Jelena Vuckovic, "Ultralow threshold electrically injected nanocavity lasers and modulators," *CIS Roundtable and review meeting*, Stanford, CA, May 2011
 273. Erik Kim, Jelena Vuckovic, *Quantum Dot Day*, University of Bristol, Bristol, UK (Jan 10, 2010)
 274. Jelena Vuckovic, *EE Centennial at CALTECH*, Caltech, Pasadena, CA, Nov. 5-6, 2010.
 275. Jelena Vuckovic, *CeNS Workshop "Nanosciences – Merging Disciplines,"* at the Venice International University (VIU), Italy, Sept. 20-24, 2010
 276. Jelena Vuckovic, "Photonic crystal nanocavity lasers," *Micro/Nano Laser session at the IEEE Photonics Society Semiconductor Laser Workshop, CLEO/QELS*, San Jose, May, 2010
 277. Jelena Vuckovic, "Nanophotonics for optical interconnects and light sources," *Center for Integrated Systems Round Table and Review*, Stanford University, May 18-19, 2010
 278. Jelena Vuckovic, *Stanford University Photonics Retreat*, Napa, April 2010
 279. 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
 280. Jelena Vuckovic, *Frontiers in Nanoscale Science and Technology Workshop*, Harvard University, Cambridge, MA, May 29-31, 2009

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281. 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
 282. Dirk Englund, Jelena Vuckovic, *Nanoscience Winterschool*, St. Anton, Arlberg, Austria, March 1-7, 2009.
 283. Andrei Faraon and Jelena Vuckovic, workshop on Optical approaches to Topological Cluster State Computing, National Institute for Informatics (NII), Tokyo, Japan (Dec. 2008)
 284. Yiyang Gong and Jelena Vuckovic, "Plasmonic enhancement of emission from silicon nanocrystals," G-COE International Symposium for Young Scientists, Kyoto, Japan, October 2008
 285. 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
 286. 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.
 287. 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
 288. 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.
 289. 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
 290. 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
 291. 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.
 292. Jelena Vuckovic, "Nanophotonic chips for optical interconnects and quantum communication," *CIS Spring Round Table and Review*, Stanford, May 2007
 293. Jelena Vuckovic, "Nanophotonic chips for optical interconnects and quantum communication," French-Californian Workshop on Nanophotonics, Stanford March 19th
 294. Jelena Vuckovic, "Photonic crystal chips for classical and quantum information processing," *Stanford-NEC Day*, Stanford University, Feb. 16 2007.
 295. Hatice Altug and Jelena Vuckovic, "Photonic crystal devices for nano- and biophotonics," *NNIN review*, U. of Texas in Austin, Feb. 2006.
 296. Jelena Vuckovic, "Photonic Crystal Devices for Optical Interconnects," *MARCO Interconnect Focus Center (IFC) Workshop*, Stanford University, Stanford, CA March 2006.

297. 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.
298. 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.
299. 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.
300. 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.
301. 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.
302. Jelena Vuckovic, "Quantum optical devices based on quantum dots in photonic crystals," *International Symposium on Quantum Entanglement*, Stanford University, Stanford, CA, December 2003.
303. Jelena Vuckovic, "Quantum optical devices based on quantum dots in microcavities," *Quantum Enabled Science and Technology (QUEST) Workshop*, Santa Fe, NM, August 2003.
304. Jelena Vuckovic, "Quantum information applications of microcavities," *NSF DARPA Photonics Technology Access Program (PTAP) Optical Microresonators Workshop*, San Diego, CA July 2003.
305. 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.
306. Jelena Vuckovic, "Paradigm shifts in devices for optoelectronics," *CIS Autumn Roundtables and advisory committee meetings*, Stanford University, Stanford, CA, November 2002.
307. 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.
308. Jelena Vuckovic, "Single photons and entangled photons from a quantum dot microcavity," *International Symposium on Quantum Entanglement*, College de France, Paris, France, June 2002.
309. Jelena Vuckovic, "Photonic bandgap materials," *CNOM (Center for Nonlinear Optical Materials) Annual Meeting*, Stanford University, Stanford, CA, September 2000.

INVITED COLLOQUIA AND SEMINARS

310. Jelena Vuckovic, *College of Optical Sciences Colloquium, University of Arizona*, January 2021
311. Jelena Vuckovic, *Distinguished Lecturer Seminar, Max Planck Institute for the Science of Light (MPL)*, Erlangen, Germany, Nov. 2020
312. Jelena Vuckovic, *Distinguished Grace Hopper Lecture, University of Pennsylvania*, November 2020
313. Jelena Vuckovic, *ACS Photonics Global Webinar*, November 2020
314. Jelena Vuckovic, *Virtual AMO Seminars (VAMOS)*, Oct. 2020
315. Jelena Vuckovic, *EE100 Seminar, Stanford*, Oct. 2020
316. Jelena Vuckovic, *Physics Research at Stanford (Phys290 seminar)*, October 2020
317. Jelena Vuckovic, *IQUIST seminar, University of Illinois at Urbana-Champaign*, October 2020
318. Jelena Vuckovic, *Physics Undergraduate Research Seminar, Stanford University*, July 2020
319. Jelena Vuckovic, *Broadcom*, May 2020
320. Jelena Vuckovic, *MIT RLE's Optics and Quantum Electronics Seminar*, April 2020
321. Jelena Vuckovic, *Distinguished Seminar Series in Nanoscience, Kavli Nanoscience Institute (KNI)*, California Institute of Technology (Caltech), Pasadena, CA, January 2020
322. Jelena Vuckovic, *UCSC ECE Department Lecture Series*, UCSC, Spring 2020
323. Jelena Vuckovic, *University of Colorado Boulder Quantum Center (CUbit) Seminar*, CU Boulder, JILA & NIST, April 2020
324. Jelena Vuckovic, *UC Berkeley Condensed Matter Physics Seminar*, April 2020
325. Jelena Vuckovic, *ECE Distinguished Seminar*, Northwestern University, November 2019
326. Jelena Vuckovic, *Distinguished Lecture Series, Molecular Foundry, Lawrence Berkeley National Laboratory (LBNL)*, Berkeley, CA, May 2019
327. Jelena Vuckovic, *JQI (Joint Quantum Institute) Seminar*, University of Maryland, May 2019
328. Jelena Vuckovic, *LMU-TUM Physics Colloquium*, Ludwig Maximilian University of Munich, and Technical University of Munich, Munich, Germany, April 2019
329. Jelena Vuckovic, *QuTech Colloquium*, Delft, Netherlands, April 2019
330. Jelena Vuckovic, *IQST Seminar, University of Stuttgart*, April 2019
331. Jelena Vuckovic, *COQUS Colloquium*, University of Vienna, Austria, April 2019
332. Jelena Vuckovic, *Max Planck Institute for Quantum Optics Colloquium, Munich*, Germany, March 2019

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333. Jelena Vuckovic, *Fellows' Lunch*, Technical University of Munich – Institute for Advanced Study, Munich, Germany, March 2019
 334. Jelena Vuckovic, *Apple*, Cupertino, CA, Feb. 2019
 335. Jelena Vuckovic, *Joint Quantum Seminar*, Harvard University, January 2019
 336. Jelena Vuckovic, *ECE Distinguished Colloquium Speaker*, Boston University, January 2019
 337. Jelena Vuckovic, *SLAC Colloquium*, SLAC, Stanford, January 2019
 338. Jelena Vuckovic, *Corning Research*, Sunnivale, September 2018
 339. Jelena Vuckovic, *Palo Alto Research Center (PARC)*, May 2018
 340. Jelena Vuckovic, *Tech Talk, Google X*, April 2018
 341. Jelena Vuckovic, *Max Planck Institute for Quantum Optics, Munich*, Germany, March 2018
 342. Jelena Vuckovic, *PayPal Quantum Computing Series*, February 2018
 343. Jelena Vuckovic, *Samsung Silicon Valley Speaker Series*, Samsung, San Jose, February 2018
 344. Jelena Vuckovic, *Solid State Devices Seminar Series, UC Berkeley*, October 2017
 345. Jelena Vuckovic, *Tech Talk, Google X, Palo Alto*, October 2017
 346. Jelena Vuckovic, a short talk on “Quantum photonic technologies,” *Stanford Physics/Applied Physics Colloquium* (Sept. 2017)
 347. Jelena Vuckovic, *Schottky Seminar, Technical University of Munich*, June 2017
 348. Jelena Vuckovic, “Quantum nanophotonics,” *Distinguished Lecture, Munushian Lecturer Series*, Electrical Engineering-Electrophysics, University of Southern California, Los Angeles, April 2017
 349. Jelena Vuckovic, *Caltech Materials Research Lecture seminar series*, Caltech, Pasadena, CA, Feb. 22nd, 2017
 350. Jelena Vuckovic, *Caltech Silicon Valley Alumni Luncheon*, Palo Alto, CA, Jan. 2017
 351. Jelena Vuckovic, *Stanford Materials Science Colloquium*, Stanford, CA, Nov. 2016
 352. Jelena Vuckovic, *Joint ITAMP/HQOC Seminar (Institute for Theoretical Atomic Physics/Harvard Quantum Optics Center)*, Harvard, Cambridge, MA, Sep. 2016
 353. Jelena Vuckovic, “Inverse design and demonstration of nanophotonic devices,” *Mentor Graphics*, Fremont, CA, Mar. 2016
 354. Jelena Vuckovic, “Inverse design and demonstration of nanophotonic devices,” *Global Foundries*, Santa Clara, CA, Aug 2015
 355. Jelena Vuckovic, *Physics Colloquium, University of California San Diego*, La Jolla, CA, February 2015
 356. Jelena Vuckovic, *IEEE Seminar, University of Toronto, Canada*, September 2014

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357. Jelena Vuckovic, *Physics Colloquium, University of Washington, Seattle, WA, April 2014*
 358. Jelena Vuckovic, *Institute for Advanced Studies, Technical University Munich, Germany, March 2014*
 359. Jelena Vuckovic, *Knowledge at Noon, EE staff seminar, Stanford, July 2013*
 360. Jelena Vuckovic, *Seminar at the University of Nis, Serbia, May 2013*
 361. Jelena Vuckovic, *Colloquium at the University of Belgrade, Serbia, May 2013*
 362. Jelena Vuckovic, *Seminar at Institute for Physics, Humboldt University, Berlin, Germany, April 2013*
 363. Jelena Vuckovic, *Alexander Von Humboldt Lecture, Technical University of Berlin, Berlin, Germany, April 2013*
 364. Jelena Vuckovic, *Neils Bohr Institute Seminar, Copenhagen, Denmark May 2013*
 365. Jelena Vuckovic, *Schottky Seminar, Technical University Munich, Germany, April 2013*
 366. Jelena Vuckovic, "Optical nanocavities with quantum dots: from nano-lasers to bio-probes," *Optics and Quantum Electronics Seminar, MIT, March 2013*
 367. Jelena Vuckovic, "Quantum dots in optical nanocavities: from cavity QED to applications," *Physics Colloquim, UC Berkeley, Oct. 2012*
 368. Jelena Vuckovic, "Nonlinear optics at the single photon level in optical nanocavities," *Optics and Quantum Electronics Seminar, Ginzton Lab, Stanford University, Nov. 2011*
 369. Jelena Vuckovic, " Quantum dots in optical nanocavities: from cavity QED to device applications," *MIT Physics Colloquium, Nov. 2011*
 370. Jelena Vuckovic, *IFC e-seminar, Nov. 2011.*
 371. Jelena Vuckovic, " Quantum dots in optical nanocavities: from cavity QED to device applications," *Humboldt University, Berlin, Germany, May 2011*
 372. 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*
 373. Jelena Vuckovic, "Quantum dots in optical nanocavities: from cavity QED to device applications," *Physics Colloquium, Stanford University, Stanford, CA, Feb. 15, 2011*
 374. Jelena Vuckovic, "Quantum dots in nanocavities: from cavity QED to optical switches" *U.C. Berkeley Nanoscale Science and Engineering (NSE) seminars, Berkeley, October 2010*
 375. Jelena Vuckovic, *MARCO IFC e-seminar, May 2010.*
 376. Jelena Vuckovic, "Quantum dots in photonic crystals for classical and quantum information processing," *U.C. Berkeley, EECS Department, Photonics and plasmonics seminar, April 2010.*
 377. Jesse Lu, Jelena Vuckovic, "Inverse design of nanophotonics structures using complementary convex optimization," *U.C. Berkeley, EECS Department, Photonics and plasmonics seminar, March 2010.*

378. Jelena Vuckovic, *Caltech, Materials Research Lectures (MRL)*, March 2010
379. Jelena Vuckovic, Physics Colloquium, *Harvard University*, February 2010.
380. Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," MIT, *Optics and Quantum Electronics Seminar*, Nov. 2008
381. 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
382. Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," Stanford University, *Ginzton Lab Seminar*, April 2008
383. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," Columbia University, *Department of Physics Colloquium*, November 2006.
384. Ilya Fushman and Jelena Vuckovic, "Quantum information processing with quantum dots in photonic crystals," UC Berkeley, *Quantum Computation Seminar*, April 2006.
385. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," University of Connecticut, Department of Physics, *Hascoe Lecture*, April. 2006.
386. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," Harvard University, *Engineering and Applied Science Seminar Series*, March 2006.
387. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," University of Toronto, *Optics and Quantum Optics Seminar*, March 2006.
388. Jelena Vuckovic, "Nanoscale and quantum photonic devices," Stanford University, *Electrical Engineering Graduate Seminar*, February 2006.
389. Jelena Vuckovic, "Generation and manipulation of classical and nonclassical light using photonic crystals," University of California Santa Barbara, *Materials Colloquium*, October 2005.
390. Jelena Vuckovic, "Generation and manipulation of classical and nonclassical light using photonic crystals," Caltech, *Joint EE-AP seminar*, May 2005.
391. Jelena Vuckovic, "Photonic crystal devices for quantum and nanoscale photonics," UC Berkeley, *AMO Seminar*, December 2004.
392. Jelena Vuckovic, "Photonic crystal devices for nanophotonics and quantum information processing," Harvard University, *Joint Atomic Physics Colloquium*, March 2004.
393. Jelena Vuckovic, "Photonic crystals and their applications in optoelectronics and quantum optics," Stanford University, Materials Science and Engineering Department, May 2003.
394. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Palo Alto Research Center (PARC), February 2003.

395. Jelena Vuckovic, "Quantum optical devices based on photonic crystals," Los Alamos National Laboratory, *Quantum Lunch Seminar Series*, January 2003.
396. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Princeton University, Electrical Engineering Department, April 2002.
397. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Stanford University, Electrical Engineering Department, April 2002.
398. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," California Institute of Technology (Caltech), Applied Physics Department, April 2002.
399. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Massachusetts Institute of Technology (MIT), Electrical Engineering Department, March 2002.
400. Jelena Vuckovic, "Photonic crystals," Stanford University, Applied Physics Department, November 2001.
401. Jelena Vuckovic, "Photonic crystals," University of California San Diego, Electrical Engineering Department, April 2001.

REFEREED CONFERENCE PUBLICATIONS

1. "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)
2. "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
3. "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
4. "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
5. "Towards inverse-designed optical interconnect," Jinhie Skarda, Kiyoul Yang, Melissa Guidry, Geun Ho Ahn, Jelena Vuckovic, *IEEE Optical Interconnects Conference*, Montreal, Canada, July 2020
6. "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
7. "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

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10. "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
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12. "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
13. "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
14. "Photon blockade in Tavis Cumming model," Rahul Trivedi, Marina Radulaski, Kevin Fischer, Shanhui Fan and Jelena Vuckovic, *APS March Meeting*, Denver, CO, March 2020
15. "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
16. "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
17. "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
18. "Dispersion engineering with inverse design," Dries Vercruysee, Rahul Trivedi, Neil Saprà, Logan Su, Jelena Vuckovic, *SPIE Photonics West*, San Francisco, February 2020
19. "Inverse design and demonstration of laser driven particle accelerators on chip, Neil V. Saprà, Ki Youl Yang, Dries J. F. Vercruysee, Kenneth Liddle, Dylan Black, Logan Su, Rahul Trivedi, Yu Miao, Olav Solgaard, Bob Byer, Jelena Vučković, *SPIE Photonics West*, San Francisco, February 2020
20. "Nonlinear isolation in an inverse-designed silicon photonic circuit," Ki Youl Yang, Jinjie Skarda, Michele Cotrufo, Geun Ho Ahn, Andrea Alu, and Jelena Vuckovic, *Frontiers in Optics*, Washington, DC, September 2019

21. “Foundry-fabricated inverse designed photonics,” Alexander Y. Piggott, Logan Su, Neil Saprà, Akhilesh Khope, Andy Netherton, John Bowers, and Jelena Vuckovic, *Frontiers in Optics*, Washington, DC, September 2019
22. “Fast and numerically exact metasurface simulation,” Rahul Trivedi, Logan Su, Neil V. Saprà, Seunghoon Han, Shanhui Fan, and Jelena Vuckovic, *Frontiers in Optics, Washington, DC*, September 2019
23. “Dispersion engineering with inverse design,” Dries Vercruyssen, Rahul Trivedi, Neil Saprà, Logan Su, Jelena Vuckovic, *SPIE Optics + Photonics*, San Diego, CA, Aug. 2019
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25. “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
26. “Inverse Designed Cavity-Waveguide Couplers,” Jinhie Skarda, Ki Youl Yang, Dries Vercruyssen, Neil V. Saprà, Logan Su, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2019
27. “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
28. “Diamond Photonic Circuits,” Constantin Dory, Dries Vercruyssen, Ki Youl Yang, Neil V. Saprà, 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
29. “4H-SiC-on-Insulator Platform for Quantum Photonics,” Daniil Lukin, Constantin Dory, Marina Radulaski, Shuo Sun, Sattwik Deb Mishra, Melissa Guidry, Dries Vercruyssen, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2019
30. “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
31. “Lithographically-defined strain control in atomically-thin semiconductors,” Leo Yu, Linda Zhang, Jelena Vuckovic, Tony Heinz, *APS March Meeting*, Boston, MA, March 2019
32. “Optimized Photonic Quantum Hardware in Diamond,” Constantin Dory, Dries Vercruyssen, Ki Youl Yang, Neil V. Saprà, 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
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34. “Demonstration of Inverse Designed Broadband Cavity-Waveguide Couplers,” Jinjie Skarda, Ki Youl Yang, Dries Vercruysee, Neil V. Sapiro, Logan Su, Rahul Trivedi, Alexander Y. Piggott, and Jelena Vučković, *APS March Meeting*, Boston, MA, March 2019
35. “Study of single tin-vacancy centers in diamond,” Alison E. Rugar, Shuo Sun, Constantin Dory, Jelena Vuckovic, *APS March Meeting*, Boston, MA, March 2019
36. "Analysis of weakly-driven multi-emitter cQED systems", Rahul Trivedi, Marina Radulaski, Kevin Fisher and Jelena Vuckovic, *APS March Meeting*, Boston, MA, March 2019
37. “4H-SiC-on-insulator platform for quantum photonics,” Daniil M. Lukin, Constantin Dory, Marina Radulaski, Shuo Sun, Dries Vercruysee, and Jelena Vuckovic, *Workshop on SiC quantum devices*, Royal Society, London, UK, Nov. 2018
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39. Challenges in simulating beam dynamics of dielectric laser acceleration, U. Niedermayer, A. Adelman, R. Abmann, 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. Langenstien, 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. Sapiro, 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]
40. “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)
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43. “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

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46. "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
47. "Fabrication Constrained Inverse Design of a 3-channel Wavelength Demultiplexer," Alexander Y. Piggott, Logan Su, Neil V. Saprà, Jan Petykiewicz, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2018
48. "Fully-automated grating coupler design through adjoint optimization," Logan Su, Rahul Trivedi, Neil V. Saprà, Alexander Y. Piggott, Dries Vercruyse, and Jelena Vuckovic, *CLEO*, San Jose, CA, May 2018
49. "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
50. "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
51. "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
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53. "Level-set Fabrication Constraints for Gradient-based Optimization of Optical Devices," Dries Vercruyse, Logan Su, Rahul Trivedi, Neil V. Saprà, Alexander Y. Piggott, and Jelena Vučković, *CLEO*, San Jose, CA, May 2018
54. "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
55. "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,

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56. "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
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 58. "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
 59. "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
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 65. "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
 66. "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

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69. “Towards a fully integrated accelerator on a chip,” K. Wooton et al, *Proceedings of the IPAC 2017 (International Particle Accelerators Conference)*, Copenhagen, Denmark, May 2017
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71. “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. Saprà, and Jelena Vuckovic, *CLEO-QELS*, San Jose, CA, May 2017
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72. “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
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75. “Multi-Emitter Cavity Quantum Electrodynamics in Solid State Systems,” Marina Radulaski, Kevin Fischer, Konstantinos Lagoudakis, Linda Zhang, Jelena Vuckovic, *APS March Meeting*, New Orleans, Louisiana, March 2017
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84. "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
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