

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

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

February 2013 - present: 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

- 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.

PROFESSIONAL SOCIETIES

- 2017: IEEE Senior Member

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; nanophotonic intracellular sensors.

PROFESSIONAL ACTIVITIES

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

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

Stanford Systems-X Board Member, 2015-present

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

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

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

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

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

Quantum Africa II, Sep. 2012, Program Committee member

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

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

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

Principal Investigator of the ARO-IARPA MURI Center for Photonic Quantum Information Systems, 2003-2008

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.

Reviewer of research proposals for a number of funding agencies and institutes in the USA and abroad

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).

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): Assistant Professor, Electrical Engineering and Computer Science, MIT
3. Ilya Fushman (PhD Appl. Phys., 2008): General partner at Index Ventures
4. Andrei Faraon (PhD Appl. Phys., 2009): Assistant Professor, Applied Physics, Materials Science, and Biomedical Engineering, Caltech
5. Maria Makarova (PhD EE, 2010): Lecturer, Tecnológico de Monterrey, Monterrey, Mexico
6. Yiyang Gong (PhD EE, 2010): Assistant Professor of Biomedical Engineering at Duke
7. Bryan Ellis (PhD EE, 2011): Research Scientist, Foveon
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): Optics & display technical program manager for virtual reality, Google
11. Jesse Lu (PhD EE, 2013): Software Engineer, Google/YouTube
12. Sonia Buckley (PhD Appl. Phys., 2014): NRC postdoctoral fellow, NIST, Boulder
13. Armand Rundquist (PhD EE, 2015): Laser Design Engineer, NeoPhotonics
14. Jan Petykiewitz (PhD EE, 2016): Senior Research Engineer, Global Foundries
15. Marina Radulaski (PhD Appl. Phys., 2016): postdoctoral fellow at Stanford
16. Yousif Kelaita (PhD EE, expected 2017)
17. Kevin Fischer (PhD EE, expected 2017)
18. Alexander Piggott (PhD EE, expected 2017)
19. Linda Zhang (PhD Appl. Phys., expected 2018)
20. Logan Su (PhD Appl. Phys, expected 2019)
21. Neil Sapra (PhD Physics, expected 2020)

22. Constantin Dory (PhD EE, expected 2020)
23. Rahul Trivedi (PhD EE, expected 2021)

Present and former MSc students

1. Guillermo Andres Angeris, EE co-term MSc, MSc thesis (co-advised with Stephen Boyd), 2017-present
2. Nicolas Manquest (MSc EE 2010); now a research engineer at Astrium, France

Present and former postdocs

1. Edo Waks (2003-2006): Associate 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, Army Research Laboratory
6. Kai Mueller (2013-2015): Senior research scientist, Schottky Institute, Technical University Munich, Germany
7. Konstantinos Lagoudakis (2012-)
8. Tomas Sarmiento (2013-)
9. Dries Vercruysse (2016-)
10. Shuo Sun (2017-)
11. Marina Radulaski (2017-)

OTHER INTERESTS AND SKILLS

Languages: Serbian (native), English (fluent), French (intermediate).
Computer languages: C, C++, Tcl
Nanofabrication techniques (etching, e-beam lithography, etc)

PUBLICATIONS

As of May. 2017, ~160 published in refereed journals. Work cited more than 18000 times, h-index of 67 (Google Scholar)
14 book chapters
14 issued US patents, several pending
Over 200 invited talks, seven plenary, and two keynote talks
(the list follows; selected publications available online on the website)

PUBLICATIONS LIST

REFEREED JOURNAL PUBLICATIONS

Published

1. Marina Radulaski, Kevin A. Fischer, Konstantinos G. Lagoudakis, Jingyuan Linda Zhang, and Jelena Vuckovic, "Photon Blockade in Two-Emitter-Cavity Systems," *Physical Review A*, vol. 96, 011801(R) (2017)
2. Alexander Piggott, Jan Petykiewicz, Logan Su, and Jelena Vuckovic, "Fabrication-constrained nanophotonic inverse design," *Scientific Reports* 7, 1786 (2017)
3. Kevin A. Fischer, Yousif A. Kelaita, Neil V. Saprà, Constantin Dory, Konstantinos G. Lagoudakis, Kai Mueller, and Jelena Vuckovic, "An on-chip architecture for self-homodyned nonclassical light," *Physical Review Applied*, vol. 7, 044002 (April 2017)
4. G. Vampa, H. Fattahi, J. Vučković, and F. Krausz, "Attosecond nanophotonics," *Nature Photonics*, vol. 11, pp. 210-212 (April 2017)
5. Marina Radulaski, Matthias Widmann, Matthias Niethammer, Jingyuan Linda Zhang, Sang-Yun Lee, Torsten Rendler, Konstantinos G. Lagoudakis, Nguyen Tien Son, Erik Janzen, Takeshi Ohshima, Jörg Wrachtrup, Jelena Vuckovic, "Scalable quantum photonics with single color centers in silicon carbide," *Nano Letters* 17 (3), pp 1782–1786 (2017)
Featured in *Nanotech Web*, *Institute of Physics (IOP)*, *Stanford News*, *Stanford Daily*, *Science Daily*, *Phys.org*,
6. Yan-Kai Tzeng, Haiyu Lu, Jingyuan Linda Zhang, Hitoshi Ishiwata, Jeremy Dahl, Robert M. K. Carlson, Hao Yan, Peter R. Schreiner, Jelena Vuckovic, Zhi-Xun Shen, Nicholas Melosh, Steven Chu, "Vertical-Substrate MPCVD Epitaxial Diamond Growth," *Nano Letters*, Article ASAP, DOI: 10.1021/acs.nanolett.6b04543 (2017)
7. Kevin A. Fischer, Lukas Hanschke, Jakob Wierzbowski, Tobias Simmet, Constantin Dory, Jonathan J. Finley, Jelena Vuckovic, Kai Müller, "Signatures of two-photon pulses from a quantum two-level system," *Nature Physics*, DOI 10.1038/nphys4052 (2017)
Featured in *Stanford News*, *Stanford Daily*, *Science Daily*, *Phys.org*,
8. Constantin Dory, Kevin A. Fischer, Kai Mueller, Konstantinos G. Lagoudakis, Tomas Sarmiento, Armand Rundquist, Jingyuan L. Zhang, Yousif Kelaita, Neil V. Saprà, and Jelena Vuckovic, "Tuning the Photon Statistics of a Strongly Coupled Nanophotonic System," *Physical Review A*, vol. 95, 023804 (2017)
9. K. G. Lagoudakis, K. A. Fischer, T. Sarmiento, P. L. McMahon, M. Radulaski, J. L. Zhang, Y. Kelaita, C. Dory, K. Müller and J. Vučković, "Observation of Mollow Triplets with Tunable Interactions in Double Lambda Systems of Individual Hole Spins" *Physical Review Letters*, vol. 118, 013602 (2017)

10. Kevin Fischer, Kai Mueller, Konstantinos Lagoudakis, Jelena Vuckovic, “Dynamical modeling of pulsed two-photon interference,” *New Journal of Physics*, vol. 18, 113053 (2016)
Listed in *2016 highlights for New Journal of Physics*
11. Yousif A. Kelaita, Kevin A. Fischer, Thomas M. Babinec, Konstantinos G. Lagoudakis, Tomas Sarmiento, Armand Rundquist, Arka Majumdar, Jelena Vuckovic, “Hybrid metal-dielectric nanocavity for enhanced light-matter interactions,” *Optical Materials Express*, Vol. 7 Issue 1, 231-239 (2017) [invited paper]
Featured in *Business Wire, OSA News, Science Daily, EurekAlert, Yahoo Finance, TMC Net, Digital Journal, Benzinga, Opli*
12. K. G. Lagoudakis, P. L. McMahon, C. Dory, K. A. Fischer, K. Müller, V. Borish, D. Dalacu, P. J. Poole, M. E. Reimer, V. Zwiller, Y. Yamamoto, & J. Vučković, “Ultrafast Coherent Manipulation of Trions in Site-Controlled Nanowire Quantum Dots,” *Optica*, vol. 3, 1430-1435 (2016)
13. Kai Müller, Kevin A. Fischer, Constantin Dory, Tomas Sarmiento, Konstantinos G. Lagoudakis, Armand Rundquist, Yousif Kelaita, Jelena Vuckovic, “Self-homodyne enabled generation of indistinguishable photons,” *Optica*, vol. 3, 931-936 (2016)
14. Konstantinos G. Lagoudakis, Peter L. McMahon, Shruti Puri, Dan Dalacu, Philip J. Poole, Michael E. Reimer, Val Zwiller, Yoshihisa Yamamoto, Jelena Vuckovic, “Initialization of a spin qubit in a site-controlled nanowire quantum dot,” *New Journal of Physics*, vol. 18, 053024 (2016)
15. C. Dory, K. A. Fischer, K. Müller, K. G. Lagoudakis, T. Sarmiento, A. Rundquist, J. L. Zhang, Y. Kelaita and J. Vuckovic, “Complete Coherent Control of a Quantum Dot Strongly Coupled to a Nanocavity,” *Scientific Reports*, vol. 6, 25172 (2016)
16. Armin Regler, Konrad Schraml, Anna Lyamkina, Matthias Spiegl, Kai Müller, J. Vuckovic, Jonathan J. Finley, and Michael Kaniber, “Emission redistribution from a quantum dot-bowtie nanoantenna,” *Journal of Nanophotonics*, vol. 10 (3), 033509 (2016)
17. Jan Petykiewicz, Donguk Nam, Devanand S. Sukhdeo, Shashank Gupta, Sonia Buckley, Alexander Y. Piggott, Jelena Vuckovic, and Krishna C. Saraswat, “Direct Bandgap Light Emission from Strained Ge Nanowires Coupled with High-Q Nanophotonic Cavities,” *Nano Letters*, vol. 16, pp. 2168–2173 (2016)
18. Kevin A. Fischer, Kai Müller, Armand Rundquist, Tomas Sarmiento, Alexander Y. Piggott, Yousif Kelaita, Constantin Dory, Konstantinos G. Lagoudakis, Jelena Vuckovic, “Self-homodyne measurement of a pulsed Mollow triplet in the solid state,” *Nature Photonics*, vol. 10, pp. 163-166 (2016)
Featured in the *Stanford Report, Stanford Engineering News, Phys.org, Science Daily, Futurity, Science Alert, Vice Motherboard, ACM Tech News, IEEE Signal Processing Magazine, etc*
19. Jingyuan Linda Zhang, Hitoshi Ishiwata, Thomas M. Babinec, Marina Radulaski, Kai Müller, Konstantinos G. Lagoudakis, Constantin Dory, Jeremy Dahl, Robert Edgington, Veronique Soulièr, Gabriel Ferro, Andrey A. Fokin, Peter R. Schreiner, Zhi-Xun Shen,

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

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

20. David S. Sukhdeo, Jan Petykiewicz, Shashank Gupta, Daeik Kim, Sungdae Woo, Youngmin Kim, Jelena Vučković, Krishna C. Saraswat, and Donguk Nam,, “Ge Microdisk with Lithographically-Tunable Strain using CMOS-Compatible Process,” *Optics Express*, ol. 23, No. 26, pp. 33249-33254 (2015)
21. Edward T. Fei, Xiaochi Chen, Kai Zang, Yijie Huo, Gary Shambat, Gerald Miller, Xi Liu, Raj Dutt, Theodore I. Kamins, Jelena Vuckovic, James S. Harris, ”Investigation of Ge Quantum-Well Light Sources,” *Optics Express*, vol. 23, No. 17, pp. 22424-22430 (2015)
22. G. Reithmaier, F. Flassig, S. Lichtmannecker, K. Müller, A. Andrejew, J. Vuckovic, R. Gross, M. Kaniber and J. J. Finley, “On-chip generation, routing and detection of resonance fluorescence,” *Nano Letters*, DOI: 10.1021/acs.nanolett.5b01444 (2015)
23. Kai Mueller, Kevin A. Fischer, Armand Rundquist, Konstantinos G. Lagoudakis, Constantin Dory, Tomas Sarmiento, Victoria Borish, Yousif A. Kelaita, and Jelena Vuckovic, “Ultrafast polariton-phonon dynamics of strongly coupled quantum dot-nanocavity systems,” *Physical Review X*, vol. 5, 031006 (2015)

Also highlighted by APS (at <http://physics.aps.org/>): “Good Vibrations,” by Jessica Thomas

24. Kai Mueller, Armand Rundquist, Kevin Fischer, Tomas Sarmiento, Konstantinos G Lagoudakis, Yousif Kelaita, Carlos Sanchez Munoz, Elena del Valle, Fabrice P. Laussy, and Jelena Vuckovic, “Coherent generation of nonclassical light on chip via detuned photon blockade” *Physical Review Letters*, vol. 114, 233601 (2015)
25. Alexander Y. Piggott, Jesse Lu, Konstantinos G. Lagoudakis, Jan Petykiewicz, Thomas M. Babinec, and Jelena Vuckovic, “Inverse design and demonstration of a robust, ultra-compact, and broadband on-chip wavelength demultiplexer,” *Nature Photonics*, vol. 9, pp. 374-377 (2015)

Featured:

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

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

26. Sanfeng Wu, Sonia Buckley, John Schaibley, Liefeng Feng, Jiaqiang Yan, David G. Mandrus, Fariba Hatami, Wang Yao, Jelena Vučković, Arka Majumdar, Xiaodong Xu, “Ultra-low threshold monolayer semiconductor nanocavity lasers,” *Nature*, vol. 520, pp. 69–72 (2015)
27. Marina Radulaski, Thomas M. Babinec, Kai Müller, Konstantinos G. Lagoudakis, Jingyuan Linda Zhang, Sonia Buckley, Yousif A. Kelaita, Kassem AlAssaad, Gabriel Ferro and Jelena Vučković, “Photoluminescence from cubic (3C) silicon carbide microdisks coupled to high quality whispering gallery modes,” *ACS Photonics*, vol. 2, 14–19 (2014)
28. Alexander Y. Piggott, Jesse Lu, Thomas M. Babinec, Konstantinos G. Lagoudakis, Jan Petykiewicz, and Jelena Vuckovic, “Inverse design and implementation of a wavelength demultiplexing grating coupler,” *Scientific Reports*, vol. 4, article 7210 (2014)
 Featured in Stanford University News, DOE Office of Science, Phys.org, Fast Company, Gizmodo, IFLScience, MSN, Daily Mail, Silicon Valley Business Journal, etc
 Selected by Phys.org as one of the top ten science and technology developments in 2014
29. Sonia Buckley, Marina Radulaski, Jingyuan Linda Zhang, Jan Petykiewicz, Klaus Biermann, Jelena Vuckovic, “Multimode nanobeam cavities for nonlinear optics: high quality resonances separated by an octave,” *Optics Express*, Vol. 22, Iss. 22, pp. 26498–26509 (2014)
30. Sonia Buckley, Marina Radulaski, Linda Zhang, Jan Petykiewicz, Klaus Biermann, Jelena Vuckovic, “Nonlinear frequency conversion using high quality modes in GaAs nanobeam cavities,” *Optics Letters*, vol. 39, No. 19, pp. 5673–5676 (2014)
31. Konstantinos G. Lagoudakis, Kevin A. Fischer, Tomas Sarmiento, Kai Mueller and & Jelena Vuckovic, “Hole Spin Pumping and Repumping in a p-type δ -doped InAs Quantum Dot,” to appear in *Physical Review B*, vol. 90, 121402(R), (2014)
32. G. Reithmaier, F. Flassig, P. Hasch, S. Lichtmannecker, K. Mueller, M. Bichler, J. Vuckovic, R. Gross, M. Kaniber, and J. J. Finley, “A carrier relaxation bottleneck probed in single InGaAs quantum dots using integrated superconducting single photon detectors,” *Applied Physics Letters*, vol. 105, 081107 (2014)
33. A. Rundquist, M. Bajcsy, A. Majumdar, T. Sarmiento, K. Fischer, K. Lagoudakis, S. Buckley, and J. Vuckovic, “Non-classical three photon correlations with a quantum dot strongly coupled to a photonic-crystal nanocavity,” *Physical Review A*, vol. 90, 023846 (2014)
34. Alexander Y. Piggott, Konstantinos G. Lagoudakis, Tomas Sarmiento, Michal Bajcsy, Gary Shambat, and Jelena Vuckovic, “Photo-oxidative tuning of individual and coupled GaAs Photonic Crystal Cavities,” *Optics Express*, Vol. 22, 12, pp. 15017–15023 (2014)
35. Sonia Buckley, Marina Radulaski, Jan Petykiewicz, Konstantinos G. Lagoudakis, Ju-Hyung Kang, Mark Brongersma, Klaus Biermann, Jelena Vuckovic, “Below bandgap second harmonic generation in GaAs photonic crystal cavities in (111)B and (001) crystal orientations,” *ACS Photonics*, vol. 1, No. 6, pp 516–523 (2014)
36. Sanfeng Wu, Sonia Buckley, Aaron M. Jones, Jason S. Ross, Nirmal J. Ghimire, Jiaqiang Yan, David G. Mandrus, Wang Yao, Fariba Hatami, Jelena Vuckovic, Arka Majumdar,

Xiaodong Xu, “Control of Two-Dimensional Excitonic Light Emission via Photonic Crystal,” *2D Materials*, vol. 1 . 011001 (2014)

37. Waqas Mustafeez, Arka Majumdar, Jelena Vuckovic and Alberto Salleo, “A direct measurement of the electronic structure of Si nanocrystals and its effect on optoelectronic properties,” *Journal of Applied Physics*, vol. 115, 103515 (2014)
38. Marina Radulaski, Thomas M. Babinec, Sonia Buckley, Armand Rundquist, J Provine, Kassem Alassaad, Gabriel Ferro, and Jelena Vučković, “Photonic Crystal Cavities in Cubic Polytype Silicon Carbide Films,” *Optics Express*, Vol. 21, No. 26, pp. 32623-32629 (2013)
39. Konstantinos G. Lagoudakis, Kevin Fischer, Tomas Sarmiento, Arka Majumdar, Armand Rundquist, Jesse Lu, Michal Bajcsy and Jelena Vučković, “Deterministically Charged Quantum Dots in Photonic Crystal Nanoresonators for Efficient Spin-Photon Interfaces,” *New Journal of Physics*, vol. 15, 113056 (2013)
40. Sonia Buckley, Marina Radulaski, Klaus Biermann, and Jelena Vuckovic, “Second Harmonic Generation in Photonic Crystal Cavities in [111]-Oriented GaAs,” *Applied Physics Letters*, vol. 103, 211117 (2013)
41. Arka Majumdar, Jonghwan Kim, Jelena Vuckovic and Feng Wang, “Graphene for Tunable Nanophotonic Resonators,” *IEEE Journal of Selected Topics in Quantum Electronics*, VOL. 20, No. 1, article 4600204, (Jan-Feb 2014) [invited article]

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

42. Arka Majumdar, Per Kaer, Michal Bajcsy, Erik D. Kim, Armand Rundquist, Konstantinos Lagoudakis, and Jelena Vuckovic, “Proposed Coupling of an Electron Spin in a Semiconductor Quantum Dot to a Nanosize Optical Cavity,” *Physical Review Letters*, vol. 111, 027402 (2013)
43. Donguk Nam, David Sukhdeo, Juhyung Kang, Jan Petykiewicz, Jae Hyung Lee, Woo Shik Jung, Jelena Vuckovic, Mark Brongersma, and Krishna Saraswat, “Strain-Induced Homo-Compositional Heterostructure Nanowires Confining Carriers at Room Temperature with Nanoscale-Tunable Band Profiles,” *Nano-Letters*, vol. 13 (7), pp 3118–3123 (June 2013)
44. Jesse Lu and Jelena Vuckovic, “Nanophotonic Computational Design,” *Optics Express*, Vol. 21, No. 11, pp. 13351-13367 (2013)
45. Gary Shambat, Sri Rajashekhara Kothapalli, J Provine, Tomas Sarmiento, James Harris, Sanjiv Sam Gambhir, and Jelena Vuckovic, “Single-cell photonic nanocavity probes,” *Nano-Letters*, vol. 13, No. 11, pp. 4999-5005 (2013)

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

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

47. Arka Majumdar, Jonghwan Kim, Jelena Vuckovic, Feng Wang, "Electrical Control of Silicon Photonic Crystal Cavity by Graphene," *Nano Letters*, vol. 13 (2), pp 515–518 (2013)
48. Arka Majumdar, Armand Rundquist, Michal Bajcsy, Vaishno Daisika, Seth Bank, and Jelena Vuckovic, "Design and analysis of photonic crystal coupled cavity arrays for quantum simulation," *Physical Review B*, vol. 86, 195312 (2012)
49. Sonia Buckley, Kelley Rivoire, and Jelena Vuckovic, "Engineered quantum-dot single photon sources," *Reports on Progress in Physics*, vol. 75, 126503 (2012) [invited article]
50. Sonia Buckley, Kelley Rivoire, Fariba Hatami, and Jelena Vuckovic, "Quasiresonant Excitation of GaP/InGaP Quantum Dots Using Intra-Cavity Second Harmonic Generation," *Applied Physics Letters*, vol. 101, 161116 (2012)
51. Arka Majumdar, Michal Bajcsy, Dirk Englund, and Jelena Vuckovic, "All Optical Switching with a Single Quantum Dot Strongly Coupled to a Photonic Crystal Cavity," *IEEE Journal of Selected Topics in Quantum Electronics, Focus Issue on Nanoscale and Quantum Photonics*, Vol 18, pp. 1812-1817 (2012)
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BOOK CHAPTERS

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2. "Quantum optics and cavity QED with quantum dots in photonic crystals," Jelena Vuckovic, *invited book chapter* in "Lectures of Les Houches Summer School on Nanophotonics and Quantum Optics," edited by Claude Fabre, Vahid Sandoghdar, and Nicolas Treps, Oxford University Press (2014) ([arXiv:1402.2541](https://arxiv.org/abs/1402.2541))
3. "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)
4. "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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2. Gary Shambat, Jelena Vuckovic, "Biological cell nanocavity probes," US patent 9310352, Issued April 12, 2016 (Stanford disclosure S12-312)
3. 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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PLENARY AND KEYNOTE TALKS

1. Jelena Vuckovic, *Symposium on "Advancing Electronics,"* Dresden excellence cluster "Center for Advancing Electronics Dresden (CfAED)", Dresden, Germany, 19 March 2018 [keynote]
2. Jelena Vuckovic, "Quantum nanophotonics," *CLEO (Conference on Lasers and Electro-Optics)*, San Jose, CA, June 5-10, 2016 [plenary]
3. Jelena Vuckovic, "Inverse design and implementation of compact and efficient nanophotonic circuits," *SPIE Optical Microlithography*, San Jose, CA, 21 - 25 February 2016 [keynote]
4. 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]
5. Jelena Vuckovic, "Quantum Nano-Optics," *Annual Meeting of the German Physical Society (DPG)*, March 19, 2014 [plenary]
6. 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
7. 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]
8. 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]
9. 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]
10. 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

10. Jelena Vuckovic, *Gordon Research Conference on Quantum Science*, Stonehill College, Easton, MA, July 29 - August 3, 2018
11. Jelena Vuckovic, *NIM Conference on Resonator QED*, Munich, Germany, August 29 - September 1, 2017
12. Jelena Vuckovic, *ETH 2017 Monte Verita Meeting on "Frontiers in Quantum Nanophotonics,"* Monte Verita, Switzerland, August 20-25, 2017
13. Jelena Vuckovic, "Quantum Nanophotonics," *Metamaterials, Metadevices, and Metasystems Conference, SPIE Nanoscience + Engineering Symposium*, San Diego, CA, Aug. 6-10, 2017
14. Tomas Sarmiento, Jelena Vuckovic, *IEEE Summer Topical Meeting*, San Juan, Puerto Rico, July 2017

15. Jelena Vuckovic, *23th International Conference on Laser Spectroscopy (ICOLS-17)*, Arcachon, France, July 2 - 8, 2017
16. Jelena Vuckovic, "Inverse design and implementation of optical structures" *International Conference on Computation Photography (ICCP 2017)*, Stanford, May 12-14, 2017
17. 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
18. Linda Zhang, Jelena Vuckovic, "Quantum nanophotonics," *Entangled photon and nonclassical light session, SPIE Defense and Commerce conference*, Anaheim, California, April 9-13, 2017
15. 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
16. 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
17. Kai Mueller, Jelena Vuckovic, *Nonlinear Optics and Excitation Kinetics in Semiconductors (NOEKS-13)*, Dortmund, Germany, October 9-13, 2016
18. Jelena Vuckovic, "(Quantum) nanophotonics: from inverse design to implementations," *PECS XII*, University of York, UK, July 18-21 2016
19. Jelena Vuckovic, Workshop on "Attosecond Non-linear Optics", *CLEO/QELS*, San Jose, CA, June, 2016.
20. Kevin Fischer, Jelena Vuckovic, "Strongly Coupled Quantum Dot-Nanocavity Systems" *APS March Meeting*, Baltimore, MD, March 14-18, 2016
21. 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
22. Alexander Piggott, Jelena Vuckovic, "Inverse nanophotonic design," *IEEE Photonics Conference (IPC)*, Reston, VA, 4-8 October 2015
23. Jelena Vuckovic, "Quantum Nanophotonics," *Fundamental Optical Processes in Semiconductors (FOPS)*, Breckenridge, Colorado, August 2-7, 2015
24. 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
25. 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

26. 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.
27. Jelena Vuckovic, *Atomic Physics Gordon Conference*, Salve Regina University, Newport, RI June 14 - 19, 2015.
28. Jelena Vuckovic, *Photonics North 2015, Special Symposium on Quantum Information with Atoms, Molecules, and Photons*, Ottawa June 9th to 11th, 2015
29. 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
30. 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
31. 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
32. Arka Majumdar, Armand Rundquist, Sonia Buckley, Jonghwan Kim, SanfengWu, Michal Bajcsy, Feng Wang, Xiaodong Xu, Jelena Vučković, "Towards few-photon optoelectronics with photonic crystal devices," *Frontiers in Optics/Laser Science*, Tucson, AZ, Oct 19-23, 2014
33. 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.
34. 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
35. 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
36. Jelena Vuckovic, *Symposium on Quantum Dot and Nanostructures, Photonics West*, San Francisco, February 1 – 6, 2014
37. Thomas Babinec, Jelena Vuckovic, *PQE2014, "Cavity enhanced light-matter interactions,"* Snowbird, UT, January 5-9, 2014
38. 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
39. Tomas Sarmiento, Jelena Vuckovic, *SemiconNano2013, 4th International Workshop on Epitaxial Growth and Fundamental Properties of Semiconductor Nanostructures*, Lake Arrowhead, CA, Oct. 2013

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40. Jelena Vuckovic, "Optical nanocavities: from light sources to single cell probes," *IEEE Photonics Conference 2013*, Bellevue, Washington, September 2013
 41. 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
 42. Jelena Vuckovic, "Cavity QED with quantum dots in photonic crystals," *Conference on Resonator QED*, Munich, Germany, September 2013
 43. 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
 44. 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
 45. 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
 46. 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
 47. 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
 48. 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
 49. 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
 50. Jelena Vuckovic, "Photonic crystal nanocavity lasers and modulators," *IEEE Photonics Conference*, Burlingame, CA, Sept. 23-27, 2012
 51. Gary Shambat, Jelena Vuckovic, "Ultrafast photonic crystal single mode LED," *International Conference on Solid State Devices and Materials (SSDM)*, Kyoto, Japan, Sept. 2012
 52. 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
 53. Jelena Vuckovic, "Nanophotonics for quantum optics", *OSA Integrated Photonics Research, Silicon and Nano-Photonics (IPR)*, Colorado Springs, Colorado June 17-22, 2012

54. 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
55. 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
56. Jelena Vuckovic, "Ultra-low threshold and high speed electrically pumped photonic crystal nanocavity lasers and LEDs," *CLEO*, San Jose, CA, May 2012
57. 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
58. 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
59. 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
60. 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.
61. 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
62. Jelena Vuckovic, "(Solid state) cavity QED and applications" *Gordon Conference on Atomic Physics*, Mount Snow Resort, West Dover, VT, June 26-July 1, 2011
63. 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
64. 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
65. Jelena Vuckovic, IEEE 2011 Winter Topical "Low dimensional Nanostructures and Subwavelength Photonics," Keystone, Colorado, Jan 10-12, 2011 [invited tutorial]
66. Jelena Vuckovic, "Silicon nanocavity based light sources," *MRS Fall Meeting*, Boston, November 2010
67. 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.

68. 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.
69. 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
70. 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.
71. 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
72. 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
73. 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
74. 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
75. 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.
76. 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
77. 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
78. 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
79. 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

80. 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.
81. 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)
82. 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
83. 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
84. 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
85. Dirk Englund, Jelena Vuckovic, "Classical and quantum light sources based on photonic crystals," *SPIE Optics and Photonics Meeting*, San Diego, Aug. 10-14, 2008
86. 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
87. 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
88. 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
89. 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
90. 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

91. 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
92. Jelena Vuckovic, Hatice Altug, Dirk Englund, and Bryan Ellis, “Coupled photonic crystal nanocavity arrays,” *CLEO/EUROPE-IQEC 2007*, Munich, Germany, 17 – 22 June 2007
93. 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.
94. Hatice Altug, Dirk Englund and Jelena Vučković, “High Speed Dynamics of Photonic Crystal Nanocavity Laser,” *IEEE LEOS Annual Meeting*, Montreal, Canada, Nov. 2006
95. 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.
96. Edo Waks, Dirk Englund, Andrei Faraon, Ilya Fushman, Jelena Vuckovic “Nanophotonic devices for quantum information processing,” *Third Feynman Festival*, University of Maryland, August 2006.
97. 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.
98. 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.
99. 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.
100. 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.
101. 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.
102. 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.
103. 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.
104. Edo Waks, Dirk Englund, David Fattal, and Jelena Vuckovic, “Photonic-crystal based single photon source,” *SPIE Annual Meeting*, San Diego, CA, July 2005
 105. Jelena Vuckovic, "Quantum Dot-Photonic Crystal Devices and Circuits for Quantum Information Processing," *Quantum Communications Research Conference (QCRC)*, Boulder, CO, June 1-3, 2005.
 106. 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.
 107. Jelena Vuckovic, "Photonic Crystal Devices for Quantum and Nanoscale Photonics," *American Physical Society (APS) March Meeting*, Los Angeles, CA, March 2005.
 108. Jelena Vuckovic, "Nanophotonic Devices for Quantum Information Science," *Gordon Research Conference on Quantum Information Science*, Ventura, CA, Feb. 2005.
 109. 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.
 110. 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.
 111. 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.
 112. 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.
 113. 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.
 114. 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.
 115. 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.

116. 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.
117. 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.
118. A. Scherer, A. O. Painter, J. Vuckovic, M. Loncar, T. Yoshie, D. Dapkus, I. Kim, and T. Pearsall, "Photonic Crystal Cavities and Waveguides," *Conf. Digest of Device Research Conference (DRC)*, University of Notre Dame, Notre Dame, Indiana, June 2001, pp. 115-118, 2001.
119. 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

120. Jelena Vuckovic, *Okinawa School in Physics: Coherent Quantum Dynamics' OIST Graduate University*, Okinawa, Japan, September 26 - October 5, 2017
121. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2017
122. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, June 2016
123. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2015
124. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2014
125. Jelena Vuckovic, *Ecole de Physique des Houches, Quantum Optics and Nanophotonics Summer School*, Les Houches, France, August 2013.
126. Jelena Vuckovic, *Nano-Cavity Quantum Electrodynamics and Applications*, CLEO-QELS, San Jose, CA, May 2013
127. 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

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

129. Jelena Vuckovic, *PRACQSYS 17 (Principles and Applications of Control in Quantum Systems)*, University of Washington, Seattle, July 17-20, 2017
130. Shuo Sun, Jelena Vuckovic, *Optical Society of America Incubator Workshop on Integrated Quantum Photonics with Quantum Dots*, Washington, DC, June 18-20, 2017
131. Jelena Vuckovic, *Workshop on Modern Trends in Solid State Quantum Physics*, Institute of Science and Technology (IST), Austria, June 6-8, 2017
132. Jelena Vuckovic, *System-X Fall Conference*, Stanford University, Nov. 2016
133. Jelena Vuckovic, *System-X Conference, plenary session*, Stanford University, May 2016
134. 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
135. Marina Radulaski, Jelena Vuckovic, *First International Symposium on SiC Spintronics*, Vadstena, Sweden, June 15-17 (2015)
136. Jelena Vuckovic, *System-X meeting*, May 2015
137. Jelena Vuckovic, *Stanford University Photonics Retreat*, Pacific Grove, CA, on April 10-12, 2015
138. Jelena Vuckovic, *Kick-off workshop of the European Cooperation in Science and Technology (EU COST) Action MPI403 Nanoscale Quantum Optics*, Belgrade, Serbia, April 2015
139. Tom Babinec, Jelena Vuckovic, *Workshop on Quantum Plasmonics*, Benasque, Spain, March 2015
140. Jelena Vuckovic, "Quantum technologies," *Systems-X kick-off meeting*, Stanford, CA, Nov. 2014
141. 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
142. 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
143. Jelena Vuckovic, *PRACQSYS 13 (Principles and Applications of Control in Quantum Systems)*, August 20-23, 2013, Monterey, CA
144. 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
145. Jelena Vuckovic, *2012 Karles Invitational Quantum Information Science and Technology Conference*, Naval Research Laboratory, Washinton DC, Aug 27-28, 2012

146. Sonia Buckley, Jelena Vuckovic, "Gallium phosphide photonic crystal cavities for enhancing NV center emission," *Frontiers of Diamondoid Science*, Stanford University, Stanford, CA, June 2012.
147. Gary Shambat, Jelena Vuckovic, *CIS Adcom Meeting*, Stanford University, May 2012
148. Gary Shambat, Jelena Vuckovic, *CMOS Emerging Technologies Meeting*, Whistler, BC, June 2011
149. Jelena Vuckovic, "Ultralow threshold electrically injected nanocavity lasers and modulators," *CIS Roundtable and review meeting*, Stanford, CA, May 2011
150. Erik Kim, Jelena Vuckovic, *Quantum Dot Day*, University of Bristol, Bristol, UK (Jan 10, 2010)
151. Jelena Vuckovic, *EE Centennial at CALTECH*, Caltech, Pasadena, CA, Nov. 5-6, 2010.
152. Jelena Vuckovic, *CeNS Workshop "Nanosciences – Merging Disciplines,"* at the Venice International University (VIU), Italy, Sept. 20-24, 2010
153. Jelena Vuckovic, "Photonic crystal nanocavity lasers," *Micro/Nano Laser session at the IEEE Photonics Society Semiconductor Laser Workshop, CLEO/QELS*, San Jose, May, 2010
154. Jelena Vuckovic, "Nanophotonics for optical interconnects and light sources," *Center for Integrated Systems Round Table and Review*, Stanford University, May 18-19, 2010
155. Jelena Vuckovic, *Stanford University Photonics Retreat*, Napa, April 2010
156. 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
157. Jelena Vuckovic, *Frontiers in Nanoscale Science and Technology Workshop*, Harvard University, Cambridge, MA, May 29-31, 2009
158. 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
159. Dirk Englund, Jelena Vuckovic, *Nanoscience Winterschool*, St. Anton, Arlberg, Austria, March 1-7, 2009.
160. Andrei Faraon and Jelena Vuckovic, workshop on Optical approaches to Topological Cluster State Computing, National Institute for Informatics (NII), Tokyo, Japan (Dec. 2008)
161. Yiyang Gong and Jelena Vuckovic, "Plasmonic enhancement of emission from silicon nanocrystals," *G-COE International Symposium for Young Scientists*, Kyoto, Japan, October 2008
162. 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
163. 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.

164. 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
165. 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.
166. 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
167. 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
168. 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.
169. Jelena Vuckovic, "Nanophotonic chips for optical interconnects and quantum communication," *CIS Spring Round Table and Review*, Stanford, May 2007
170. Jelena Vuckovic, "Nanophotonic chips for optical interconnects and quantum communication," French-Californian Workshop on Nanophotonics, Stanford March 19th
171. Jelena Vuckovic, "Photonic crystal chips for classical and quantum information processing," *Stanford-NEC Day*, Stanford University, Feb. 16 2007.
172. Hatice Altug and Jelena Vuckovic, "Photonic crystal devices for nano- and biophotonics," *NNIN review*, U. of Texas in Austin, Feb. 2006.
173. Jelena Vuckovic, "Photonic Crystal Devices for Optical Interconnects," *MARCO Interconnect Focus Center (IFC) Workshop*, Stanford University, Stanford, CA March 2006.
174. 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.
175. 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.
176. 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.
177. 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.
178. 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.

179. Jelena Vuckovic, "Quantum optical devices based on quantum dots in photonic crystals," *International Symposium on Quantum Entanglement*, Stanford University, Stanford, CA, December 2003.
180. Jelena Vuckovic, "Quantum optical devices based on quantum dots in microcavities," *Quantum Enabled Science and Technology (QUEST) Workshop*, Santa Fe, NM, August 2003.
181. Jelena Vuckovic, "Quantum information applications of microcavities," *NSF DARPA Photonics Technology Access Program (PTAP) Optical Microresonators Workshop*, San Diego, CA July 2003.
182. 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.
183. Jelena Vuckovic, "Paradigm shifts in devices for optoelectronics," *CIS Autumn Roundtables and advisory committee meetings*, Stanford University, Stanford, CA, November 2002.
184. 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.
185. Jelena Vuckovic, "Single photons and entangled photons from a quantum dot microcavity," *International Symposium on Quantum Entanglement*, College de France, Paris, France, June 2002.
186. Jelena Vuckovic, "Photonic bandgap materials," *CNOM (Center for Nonlinear Optical Materials) Annual Meeting*, Stanford University, Stanford, CA, September 2000.

INVITED COLLOQUIA AND SEMINARS

187. Jelena Vuckovic, *Solid State Devices Seminar Series*, UC Berkeley, October 2017
188. Jelena Vuckovic, "Quantum nanophotonics: from inverse design to implementation," *EECS Distinguished Speaker Series*, Northwestern University, Chicago, IL, September 2017
189. Jelena Vuckovic, *Schottky Seminar*, Technical University of Munich, June 2017
190. Jelena Vuckovic, "Quantum nanophotonics," *Distinguished Lecture, Munushian Lecturer Series*, Electrical Engineering-Electrophysics, University of Southern California, Los Angeles, April 2017
191. Jelena Vuckovic, *Caltech Materials Research Lecture seminar series*, Caltech, Pasadena, CA, Feb. 22nd, 2017
192. Jelena Vuckovic, *Caltech Silicon Valley Alumni Luncheon*, Palo Alto, CA, Jan. 2017
193. Jelena Vuckovic, *Stanford Materials Science Colloquium*, Stanford, CA, Nov. 2016
194. Jelena Vuckovic, *Joint ITAMP/HQOC Seminar (Institute for Theoretical Atomic Physics/ Harvard Quantum Optics Center)*, Harvard, Cambridge, MA, Sep. 2016

195. Jelena Vuckovic, "Inverse design and demonstration of nanophotonic devices," *Mentor Graphics*, Fremont, CA, Mar. 2016
196. Jelena Vuckovic, "Inverse design and demonstration of nanophotonic devices," *Global Foundries*, Santa Clara, CA, Aug 2015
197. Jelena Vuckovic, *Physics Colloquium, University of California San Diego*, La Jolla, CA, February 2015
198. Jelena Vuckovic, *IEEE Seminar, University of Toronto, Canada*, September 2014
199. Jelena Vuckovic, *Physics Colloquium, University of Washington, Seattle*, WA, April 2014
200. Jelena Vuckovic, *Institute for Advanced Studies, Technical University Munich*, Germany, March 2014
201. Jelena Vuckovic, *Knowledge at Noon, EE staff seminar*, Stanford, July 2013
202. Jelena Vuckovic, *Seminar at the University of Nis*, Serbia, May 2013
203. Jelena Vuckovic, *Colloquium at the University of Belgrade*, Serbia, May 2013
204. Jelena Vuckovic, *Seminar at Institute for Physics, Humboldt University*, Berlin, Germany, April 2013
205. Jelena Vuckovic, *Alexander Von Humboldt Lecture, Technical University of Berlin*, Berlin, Germany, April 2013
206. Jelena Vuckovic, *Neils Bohr Institute Seminar*, Copenhagen, Denmark May 2013
207. Jelena Vuckovic, *Schottky Seminar*, Technical University Munich, Germany, April 2013
208. Jelena Vuckovic, "Optical nanocavities with quantum dots: from nano-lasers to bio-probes," *Optics and Quantum Electronics Seminar, MIT*, March 2013
209. Jelena Vuckovic, "Quantum dots in optical nanocavities: from cavity QED to applications," *Physics Colloquium, UC Berkeley*, Oct. 2012
210. Jelena Vuckovic, "Nonlinear optics at the single photon level in optical nanocavities," *Optics and Quantum Electronics Seminar, Ginzton Lab, Stanford University*, Nov. 2011
211. Jelena Vuckovic, " Quantum dots in optical nanocavities: from cavity QED to device applications," *MIT Physics Colloquium*, Nov. 2011
212. Jelena Vuckovic, *IFC e-seminar*, Nov. 2011.
213. Jelena Vuckovic, " Quantum dots in optical nanocavities: from cavity QED to device applications," *Humboldt University, Berlin, Germany*, May 2011
214. 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
215. Jelena Vuckovic, "Quantum dots in optical nanocavities: from cavity QED to device applications," *Physics Colloquium, Stanford University*, Stanford, CA, Feb. 15, 2011

216. Jelena Vuckovic, "Quantum dots in nanocavities: from cavity QED to optical switches" *U.C. Berkeley Nanoscale Science and Engineering (NSE) seminars*, Berkeley, October 2010
217. Jelena Vuckovic, *MARCO IFC e-seminar*, May 2010.
218. Jelena Vuckovic, "Quantum dots in photonic crystals for classical and quantum information processing," *U.C. Berkeley, EECS Department*, Photonics and plasmonics seminar, April 2010.
219. Jesse Lu, Jelena Vuckovic, "Inverse design of nanophotonics structures using complementary convex optimization," *U.C. Berkeley, EECS Department*, Photonics and plasmonics seminar, March 2010.
220. Jelena Vuckovic, *Caltech, Materials Research Lectures (MRL)*, March 2010
221. Jelena Vuckovic, Physics Colloquium, *Harvard University*, February 2010.
222. Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," MIT, *Optics and Quantum Electronics Seminar*, Nov. 2008
223. 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
224. Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," Stanford University, *Ginzton Lab Seminar*, April 2008
225. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," Columbia University, *Department of Physics Colloquium*, November 2006.
226. Ilya Fushman and Jelena Vuckovic, "Quantum information processing with quantum dots in photonic crystals," UC Berkeley, *Quantum Computation Seminar*, April 2006.
227. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," University of Connecticut, Department of Physics, *Hascoe Lecture*, April. 2006.
228. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," Harvard University, *Engineering and Applied Science Seminar Series*, March 2006.
229. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," University of Toronto, *Optics and Quantum Optics Seminar*, March 2006.
230. Jelena Vuckovic, "Nanoscale and quantum photonic devices," Stanford University, *Electrical Engineering Graduate Seminar*, February 2006.
231. Jelena Vuckovic, "Generation and manipulation of classical and nonclassical light using photonic crystals," University of California Santa Barbara, *Materials Colloquium*, October 2005.
232. Jelena Vuckovic, "Generation and manipulation of classical and nonclassical light using photonic crystals," Caltech, *Joint EE-AP seminar*, May 2005.

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233. Jelena Vuckovic, "Photonic crystal devices for quantum and nanoscale photonics," UC Berkeley, *AMO Seminar*, December 2004.
 234. Jelena Vuckovic, "Photonic crystal devices for nanophotonics and quantum information processing," Harvard University, *Joint Atomic Physics Colloquium*, March 2004.
 235. Jelena Vuckovic, "Photonic crystals and their applications in optoelectronics and quantum optics," Stanford University, Materials Science and Engineering Department, May 2003.
 236. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Palo Alto Research Center (PARC), February 2003.
 237. Jelena Vuckovic, "Quantum optical devices based on photonic crystals," Los Alamos National Laboratory, *Quantum Lunch Seminar Series*, January 2003.
 238. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Princeton University, Electrical Engineering Department, April 2002.
 239. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Stanford University, Electrical Engineering Department, April 2002.
 240. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," California Institute of Technology (Caltech), Applied Physics Department, April 2002.
 241. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Massachusetts Institute of Technology (MIT), Electrical Engineering Department, March 2002.
 242. Jelena Vuckovic, "Photonic crystals," Stanford University, Applied Physics Department, November 2001.
 243. Jelena Vuckovic, "Photonic crystals," University of California San Diego, Electrical Engineering Department, April 2001.

REFEREED CONFERENCE PUBLICATIONS

1. "Enhanced spontaneous emission from quantum dots coupled to metal nano-antennas," A. Regler, A. A. Lyamkina, A. Nolinder, A. K. Bakarov, A. I. Toropov, S. P. Moshchenko, K. Müller, J. Vuckovic, J. J. Finley, and M. Kaniber, *International Conference on Optics of Excitons in Confined Systems (OECS)*, Bath, UK, September 2017
2. "Nonclassical Light Generation with Tunable Photon Statistics from Strongly Coupled Nanophotonic Systems," Constantin Dory, Kevin A. Fischer, Kai Müller, Konstantinos G. Lagoudakis, Tomas Sarmiento, Armand Rundquist¹, Jingyuan L. Zhang, Yousif Kelaita, Neil V. Saprà, Jelena Vučković, *Quantum Nanophotonics, CSF Conference*, Monte Verità, Aug 20 - Aug 25, 2017
3. "Color center quantum nanophotonics," Marina Radulaski, Matthias Widmann, Yan-Kai Tzeng, Jingyuan Linda Zhang, Constantin Dory, Konstantinos G. Lagoudakis, Jörg Wrachtrup, Nicholas A. Melosh, Zhi-Xun Shen, Steven Chu, Jelena Vučković, *Quantum Nanophotonics, CSF Conference*, Monte Verità, Aug 20 - Aug 25, 2017

4. “Two-photon bundles from a single two-level system,” Lukas Hanschke, Kevin A. Fischer, Jakob Wierzbowski, Tobias Simmet, Constantin Dory, Jonathan J. Finley, Jelena Vuckovic, Kai Müller, *Quantum Nanophotonics Conference, SPIE Nanoscience + Engineering Symposium*, San Diego, CA, Aug. 6-10, 2017
5. “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
6. “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
7. “Emission of two-photon pulses from a quantum two-level system,” Kevin A. Fischer, Lukas Hanschke, Jakob Wierzbowski, Tobias Simmet, Constantin Dory, Jonathan J. Finley, Jelena Vuckovic, Kai Mueller, *PLMCN*, Munich, Germany, June 2017
8. “Re-excitation as a Source of Error in Single-Photon Sources Based on Quantum Two-Level Systems,” Kevin A. Fischer, Kai Müller, Konstantinos G. Lagoudakis, Jelena Vučković, *CLEO Europe*, Munich, Germany, June 2017 [poster]
9. “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
10. “Effects of Homodyne Interference on Jaynes-Cummings Emission for Single Photon Generation,” Kevin A. Fischer, Yousif A. Kelaita, Neil V. Saprà, Constantin Dory, Konstantinos G. Lagoudakis, Kai Müller, and Jelena Vučković, *CLEO-QELS*, San Jose, CA, May 2017
11. “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

Selected as a finalist for the OSA Tingyue Li Innovation Prize

12. “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
13. “Tuning the Photon Statistics of a Strongly Coupled Nanophotonic System,” C. Dory, K A Fischer, K Müller, K G Lagoudakis, T Sarmiento, A Rundquist, J L Zhang, Y Kelaita, N V Saprà, and J Vuckovic, *APS March Meeting*, New Orleans, Louisiana, March 2017
14. “Complete Quantum Control of a Single Silicon-vacancy Center in a Diamond Nanopillar,” J. L. Zhang, K. G. Lagoudakis, Y.-K. Tzeng, C. Dory, M. Radulaski, Y. Kelaita, Z.-X. Shen, N. A. Melosh, S. Chu, J. Vučković, *APS March Meeting*, New Orleans, Louisiana, March 2017

Winner of the Grand Prize at the Maiman Student Paper Competition

15. "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
16. "Observation of Mollow Triplets with Tunable Interactions in Double Lambda Systems of Individual Hole Spins," K. G. Lagoudakis, K. A. Fischer, T. Sarmiento, M. Radulaski, L. J. Zhang, P. L. McMahon, Y. Kelaita, C. Dory, K. Müller & J. Vučković, *APS March Meeting*, New Orleans, Louisiana, March 2017
17. "Design grid optimization for OPC of silicon photonics, Wenhui Wang," Xiaochi Chen, Lei Sun, Alexander Yukio Piggott, Jelena Vuckovic, Jongwook Kye, *SPIE Advanced Litho*, San Jose, February 2017
18. "Observation of Mollow Triplets with Tunable Interactions in Double Lambda Systems of Individual Hole Spins," K. G. Lagoudakis, K. A. Fischer, T. Sarmiento, M. Radulaski, L. J. Zhang, P. L. McMahon, Y. Kelaita, C. Dory, K. Müller & J. Vučković, *IQC Quantum Inovators Workshop*, Waterloo, Canada, October 2016
19. "Vertical-Substrate MPCVD Epitaxial Diamond Growth," Yan-Kai Tzeng, Haiyu Lu, Jingyuan Linda Zhang, Hitoshi Ishiwata, Jeremy Dahl, Robert M. K. Carlson, Hao Yan, Peter R. Schreiner, Jelena Vuckovic, Zhi-Xun Shen, Nicholas Melosh, Steven Chu, *MRS Fall Meeting*, Boston, Nov. 2016
20. "Remarkable interplay between strain and parasitic absorption unravelling the best route for Ge based Si-compatible lasing at room temperature," Shashank Gupta, Jan Petykiewicz, Donguk Nam, David Sukhdeo, Jelena Vuckovic, Krishna Saraswat, *IEEE Photonics Conference (IPC)*, Waikoloa, Hawaii, Oct. 2016
21. "Dramatic and previously overlooked interaction between strain and parasitic absorption in germanium with major implications for Si-compatible lasing," Shashank Gupta, Jan Petykiewicz, Donguk Nam, David Sukhdeo, Jelena Vuckovic, Krishna Saraswat, *CLEO/QELS*, San Jose, CA, June 2016
22. "Low Strain Silicon-Vacancy Color Centers in Diamond Nanopillar Arrays," Jingyuan Linda Zhang, Hitoshi Ishiwata, Thomas M. Babinec, Marina Radulaski, Kai Müller, Konstantinos G. Lagoudakis, Constantin Dory, Zhi-Xun Shen, Nicholas A. Melosh, Jelena Vučković, *CLEO/QELS*, San Jose, CA, June 2016
23. "Emitter-Cavity Coupling in Hybrid Silicon Carbide-Nanodiamond Microdisk Resonators," Marina Radulaski, Yan-Kai Tzeng, Jingyuan Linda Zhang, Hitoshi Ishiwata, Konstantinos Lagoudakis, Veronique Souliere, Gabriel Ferro, Zhi-Xun Shen, Nicholas A. Melosh, Steven Chu, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2016
24. "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
25. "Nanocavity-enabled Ultrafast Generation of Highly-indistinguishable Photons," Kevin A. Fischer, Kai Müller, Constantin Dory, Tomas Sarmiento, Konstantinos G. Lagoudakis, Armand Rundquist, Yousif Kelaita, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2016
26. "Complete Coherent Control of a Strongly Coupled Quantum Dot-Cavity Polariton System," Constantin Dory, Kevin A. Fischer, Kai Müller, Konstantinos G. Lagoudakis, Tomas

Sarmiento, Armand Rundquist, Linda Zhang, Yousif Kelaita, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2016

27. "Nanocavity-enabled Ultrafast Generation of Highly-indistinguishable Photons," Kevin A. Fischer, Kai Müller, Constantin Dory, Tomas Sarmiento, Konstantinos G. Lagoudakis, Armand Rundquist, Yousif Kelaita, Jelena Vuckovic, *DAMOP*, Providence, RI, March 2016
28. "Nanocavity-enabled ultrafast generation of highly-indistinguishable photons," Kevin A. Fischer, Kai Müller, Constantin Dory, Tomas Sarmiento, Konstantinos G. Lagoudakis^a, Armand Rundquist, Yousif Kelaita, Jelena Vuckovic, *17th International Conference on Physics of Light-Matter Coupling in Nanostructures (PLMCN17)*, Tokyo, Japan, March 2016
29. "3C-SiC microdisks for visible photonics," M. Radulaski, T. M. Babinec, J. L. Zhang, S. M. Buckley, Y. A. Kelaita, K. Müller, K. G. Lagoudakis, K. AlAssaad, G. Ferro, J. Vučković, *16th International Conference on Silicon Carbide and Related Materials*, Giardini Naxos, Italy, October 4 - 9, 2015
30. "Strained Ge Nanowire with High-Q Optical Cavity for Ge Laser Applications," Donguk Nam, Jan Petykiewicz, David S. Sukhdeo, Shashank Gupta, Sonia Buckley, Jelena Vučković and Krishna C. Saraswat, *IEEE Group IV Photonics Conference*, Vancouver, BC, Aug. 2015
31. "Nanophotonics in novel $\chi^{(2)}$ -materials: (111)-GaAs and 3C-SiC," Marina Radulaski, Sonia M. Buckley, Jingyuan L. Zhang, Jan Petykiewicz, Kai Mueller, Konstantinos G. Lagoudakis, Thomas M. Babinec, Kassem Alassaad, Gabriel Ferro, Klaus Biermann and Jelena Vuckovic, *OSA Nonlinear Optics Topical meeting*, Hawaii, July 2015
Highlight: best student paper and presentation award.
32. "Optical Pumping of Individual Spins in Self-Assembled and Site-Controlled Quantum Dots," K. G. Lagoudakis, P. L. McMahon, K. Fischer, K. M. Mueller, T. Sarmiento, D. Dalacu, P. J. Poole, M. E. Reimer, V. Zwiller, Y. Yamamoto and J. Vuckovic, *CLEO-QELS*, San Jose, CA, May 2015
33. "Inverse design and implementation of a wavelength demultiplexing grating coupler," Alexander Y. Piggott, Jesse Lu, Thomas M. Babinec, Konstantinos G. Lagoudakis, Jan Petykiewicz, and Jelena Vuckovic, *CLEO-QELS*, San Jose, CA, May 2015
34. "A novel, highly-strained structure with an integrated optical cavity for a low threshold germanium laser," Shashank Gupta, Donguk Nam, Jan Petykiewicz, David Sukhdeo, Jelena Vuckovic, Krishna Saraswat, *CLEO-QELS*, San Jose, CA, May 2015
35. "Fluorescent Nanodiamonds from Molecular Diamond Seed," Hitoshi Ishiwata, Jingyuan Linda Zhang, Robert Edgington, Thomas M. Babinec, Kai Müller, Konstantinos G. Lagoudakis, Nicholas A. Melsoh, Zhi-Xun Shen, and Jelena Vučković, *CLEO-QELS*, San Jose, CA, May 2015
36. "Visible Photoluminescence in Cubic (3C) Silicon Carbide Coupled to High Quality Microdisk Resonators," Marina Radulaski, Thomas M. Babinec, Kai Müller, Konstantinos G. Lagoudakis, Jingyuan Linda Zhang, Sonia Buckley, Yousif A. Kelaita, Kassem Alassaad, Gabriel Ferro and Jelena Vučković, *CLEO-QELS*, San Jose, CA, May 2015

37. "Hybrid diamond-silicon carbide structures incorporating Si-vacancies in diamond as quantum emitters," Jingyuan Linda Zhang, Hitoshi Ishiwata, Marina Radulaski, Thomas M. Babinec, Kai Mueller, Konstantinos G. Lagoudakis, Gabriel Ferro, Nicholas A. Melosh, Zhi-Xun Shen, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, May 2015
38. "Towards on-chip generation, routing and detection of non-classical light," F. Flassig, M. Kaniber, G. Reithmaier, K. Mueller, A. Andrejew, R. Gross, J. Vuckovic and J. J. Finley, *SPIE Photonics West*, San Francisco, CA, Feb. 2015
39. "Non-classical higher-order photon correlations from a solid-state cQED system," M. Bajcsy, A. Rundquist, A. Majumdar, T. Sarmiento, K. Fischer, K. G. Lagoudakis, S. Buckley, A. Y. Pigott, and J. Vuckovic, *DAMOP*, Madison, WI June 2014
40. "Mimicking Heterostructure Behavior Within a Single Material at Room Temperature Using Strain," David S. Sukhdeo, Donguk Nam, Ju-Hyung Kang, Jan Petykiewicz, Jae-Hyung Lee, Woo Shik Jung, Jelena Vuckovic, Mark Brongersma, and Krishna C. Saraswat, *CLEO/QELS*, San Jose, CA, June 2014
41. "Photo-oxidative tuning of individual and coupled GaAs," Photonic Crystal Cavities, Alexander Y. Piggott, Konstantinos G. Lagoudakis, Tomas Sarmiento, Michal Bajcsy, and Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2014
42. "2D-material Based Nano-photonics," Arka Majumdar, Sanfeng Wu, Sonia Buckley, Aaron M. Jones, Jason S. Ross, Nirmal J. Ghimire, Jiaqiang Yan, David G. Mandrus, Wang Yao, Fariba Hatami, Jelena Vučković, Xiaodong Xu, *CLEO/QELS*, San Jose, CA, June 2014
43. "Below bandgap second harmonic generation in GaAs photonic crystal cavities in (111) and (001) Orientations," Sonia Buckley, Marina Radulaski, Jan Petykiewicz, Konstantinos Lagoudakis, Klaus Biermann, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2014
44. "Ultrafast Light-Matter Interaction in a Metaphotonic Cavity Containing a Single Quantum Dot," Kevin A. Fischer, Thomas M. Babinec, Yousif A. Kelaita, Konstantinos G. Lagoudakis, Tomas Sarmiento, Armand Rundquist, Arka Majumdar, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2014
45. "Photonic Crystal Cavities in Cubic Silicon Carbide," Marina Radulaski, Sonia Buckley, Linda Zhang, Armand Rundquist, Thomas M. Babinec, J. Provine, Kassem Al Assaad, Gabriel Ferro, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2014
46. Marina Radulaski, S. Buckley, L. Zhang, A. Rundquist, T. M. Babinec, J. Provine, K. AlAsaad, G. Ferro, J. Vuckovic, "Photonic crystal cavities in 3C SiC," *PECS-XI*, Shanghai, China, May 11-15, 2014
47. "Photonic Crystal Cavities in Cubic (3C) Silicon Carbide," Marina Radulaski, Thomas M. Babinec, Sonia Buckley, Armand Rundquist, J. Provine, Kassem Alassaad, Gabriel Ferro, and Jelena Vučković, *APS March Meeting*, Denver, CO, March 2014
48. "Control of Two-Dimensional Excitonic Light Emission via Photonic Crystal," Sanfeng Wu, Sonia Buckley, Aaron M. Jones, Jason S. Ross, Nirmal J. Ghimire, Jiaqiang Yan, David G. Mandrus, Wang Yao, Fariba Hatami, Jelena Vuckovic, Arka Majumdar, Xiaodong Xu, *APS March Meeting*, Denver, CO, March 2014

49. "Hybrid metal/dielectric nanocavity for ultrafast quantum dot-optical field interaction," Kevin A. Fischer, Thomas M. Babinec, Yousif A. Kelaita, Konstantinos G. Lagoudakis, Tomas Sarmiento, Arka Majumdar, Jelena Vuckovic, *APS March Meeting*, Denver, CO, March 2014
50. "Direct Bandgap Germanium Nanowires Inferred from 5.0% Uniaxial Tensile Strain," David S. Sukhdeo, Donguk Nam, Ju-Hyung Kang, Jan Petykiewicz, Jae Hyung Lee, Woo Shik Jung, Jelena Vuckovic, Mark L. Brongersma and Krishna C. Saraswat, *Group IV Photonics*, Seoul, S. Korea, Aug. 2013
51. "Single-cell Photonic Nanocavity Probes," Gary Shambat, Sri Rajasekhar Kothapalli, J Provine, Tomas Sarmiento, James Harris, Sanjiv Sam Gambhir and Jelena Vučković, *CLEO/QELS*, San Jose, CA, June 2013
Grand Prize Winner at Maiman Outstanding Student Paper Competition
52. "Zeeman Splitting of Deterministically Charged Quantum Dots Coupled to Photonic Crystal Nanoresonators," Konstantinos G. Lagoudakis, Kevin Fischer, Arka Majumdar, Armand Rundquist, Michal Bajcsy, Tomas Sarmiento, and Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2013
53. "Photonic crystal coupled cavity arrays for quantum simulation," Armand Rundquist, Arka Majumdar, Michal Bajcsy, Vaishno D. Dasika, Seth R. Bank, and Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2013
54. "Nonlinear Optics in (111)-GaAs Photonic Crystal Cavities," Marina Radulaski, Sonia Buckley, Klaus Biermann, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2013
55. "Third-order photon correlations from a quantum dot coupled to a photonic-crystal nanocavity," Michal Bajcsy, Armand Rundquist, Arka Majumdar, Tomas Sarmiento, Konstantinos G. Lagoudakis, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2013
56. "Electrical Control of Photonic Crystal Cavity by Graphene," Arka Majumdar, Jonghwan Kim, Feng Wang, and Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2013
57. "Correlated photons in quantum dot-cavity quantum electrodynamics: beyond the single cavity," Arka Majumdar, Armand Rundquist, Michal Bajcsy, Jelena Vuckovic, *CLEO/QELS*, San Jose, CA, June 2013
58. "Improvement in Photoluminescence of Coimplanted Germanium by Laser Annealing," Lennon Y. T. Lee, Bruce Adams, Saurabh Chopra, Tomas Sarmiento, Bin Yang, Jan Petykiewicz, Szu-Lin Cheng, Gaurav Thareja, Jelena Vuckovic, and Yoshio Nishi, *ISPEC 2012*, Tokyo, Japan, Dec. 2012
59. "Coupling a single quantum dot to a photonic molecule," Michal Bajcsy, Arka Majumdar, Armand Rundquist, Jelena Vuckovic, *Frontiers in Optics/Laser Science*, Rochester, NY, October 2012
60. "A New Approach to Ge Lasers with Low Pump Power," Xiaochi Chen, Yijie Huo, Edward T. Fei, Gary Shambat, Kai Zang, Xi Liu, Yusi Chen, Theodore I. Kamins, Jelena Vuckovic, James S. Harris, *IEEE Photonics Conference*, Burlingame, CA, Sept. 23-27, 2012
61. "Photon blockade with a four-level atom coupled to a microcavity," M. Bajcsy, A. Majumdar, J. Vuckovic, *DAMOP 2012 Meeting*, Orange County, CA, June 2012

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62. "Electrically Driven Photonic Crystal Cavity Devices," Gary Shambat, Bryan Ellis, Jan Petykiewicz, Marie A. Mayer, Arka Majumdar, Tomas Sarmiento, James Harris, Eugene E. Haller, and Jelena Vučković, *PECS-X: 10th International Symposium on Photonic and Electromagnetic Crystal Structures*, Santa Fe, New Mexico, USA, June 3-June 8, 2012
Best student paper (oral presentation) award
 63. "Phonon Mediated Off-resonant Quantum Dot-Cavity Coupling," Arka Majumdar, Armand Rundquist, Michal Bajcsy, Alexander Papageorge, Erik D. Kim, Jelena Vuckovic, *7th International Conference on Quantum Dots (QD 2012)*, Santa Fe, NM (May 2012)
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