

ADDRESS

Prof. Jelena Vuckovic
Edward L. Ginzton Laboratory
Stanford University
Stanford, CA 94305-4088
Phone: (650) 725-2288
Fax: (650) 723-5320
E-mail: jela@stanford.edu
WWW: <http://www-ee.stanford.edu/~jela>
<http://www.stanford.edu/group/nqp>

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

Sept. 2008 – present: 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: Assistant, Faculty of Electronic Engineering, University of Nis, Yugoslavia.

AWARDS and HONORS

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
2002: Charles Lee Powell Foundation Faculty Award
1996: Postgraduate Research Award (UPRA) from the University of Sydney, Australia
1994: Silver Sign of the University of Nis, awarded to the best university student in the graduating class
1994: Best student at the Faculty of Electronic Engineering, University of Nis, Serbia
1993, 1991: The October Award (the highest award for student achievements at the University of Nis)
1989-1993 Fellowship from the Foundation for Development of Sciences and Arts, Yugoslavia, awarded to most talented high-school and university students in Yugoslavia (awarded as a high-school student, continued throughout university)
Before 1989: a number of top awards in physics and math competitions in Serbia and Former Yugoslavia.

RESEARCH ACTIVITIES & INTERESTS

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

Topics include: Nanophotonic (in particular photonic crystal) devices and circuits (including optical microcavities, lasers, optical switches and modulators). Active silicon nanophotonics. Solid-state photonic quantum information technologies. Cavity quantum electrodynamics (QED) in solid-state.

Recent achievements: demonstration of the control of a photonic crystal cavity reflectivity with a single quantum dot and of the optical nonlinearity at a single photon level (*Nature*, Dec. 2007), of controlled phase shift with a single quantum dot in a photonic crystal cavity (*Science*, May 2008), and of photon blockade and photon induced tunneling (*Nature Physics*, Sept. 2008). Demonstration of a semiconductor laser with highest (>100GHz) direct modulation speed (*Nature Physics*, July 2006).

PROFESSIONAL ACTIVITIES

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

IEEE NMDC, Nanotechnology Materials and Devices Conference, 2010 – Technical Program 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

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, Applied Physics Letters, Physical Review Letters, Physical Reviews A, B & E, IEEE Journal of Quantum Electronics, Photonics Technology Letters, Optics Letters, Optics Express, Journal of Lightwave Technology, Journal of Applied Physics, Europhysics Letters, etc.*

Reviewer of research proposals for: The National Science Foundation (NSF), Army Research Office (ARO), Semiconductors Research Corporation, NSERC (Natural Sciences and Engineering Research Council of Canada), and various internal research proposals for the universities and institutes in the USA, Europe, and Australia.

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 and 2008), *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) and Stanford Nanoscience & Nanotechnology Student Society (2008-present).

Panelist at the “Perspectives” seminar series on “Life in Academia,” co-organized by Women in Electrical Engineering (May 2005), at the Electrical Engineering Undergraduate Specialty orientation, organized by Stanford IEEE Student Chapter (2007 & 2009), and at the CIS spring Round Table and Review (2007 & 2009)

PROFESSIONAL MEMBERSHIPS

Member, Optical Society of America (2007-)
Member, American Physical Society (2003-)
Member, IEEE (2003-)
Student member, IEEE (1992-2002)
Member, MRS (2002, 2009)

TEACHING AND COURSE DEVELOPMENT

Stanford University, 2003-present:

Introduced, developed, and taught one graduate and two 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)

Also instructor for the following classes:

- Applied Quantum Mechanics I (EE222)
- Applied Quantum Mechanics II (EE223)
- Photonics Laboratory (EE234)

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

Stanford University (2003-present)

Currently a research advisor for ten PhD students, a postdoc, and a visiting scholar. Academic advisor for about 20 EE MS students, and a co-advisor/reading committee member for about 10 EE/AP students.

(Please see <http://www.stanford.edu/group/nqp> for updated info).

Present and former PhD students

Hatice Altug (2006): Assistant Professor, Boston University
Dirk Englund (2008): Assistant Professor, Columbia University
Ilya Fushman (2008): Research Scientist, Solar Junction
Andrei Faraon (2009): Postdoctoral Scholar, HP Labs, Palo Alto
Maria Makarova (expected 2009)
Bryan Ellis (expected 2010)
Yiyang Gong (expected 2010)
Kelley Rivoire (expected 2011)
Jesse Lu (expected 2011)
Arka Majumdar (expected 2012)
Gary Shambat (expected 2013)
Carter Lin (expected 2013)

Present and former postdocs

Edo Waks (2003-2006): Assistant Professor, University of Maryland and JQI
Vanessa Sih (2007-2008): Assistant Professor, University of Michigan
Erik Kim (2009-)

Michal Bajcsy (2010-)

OTHER INTERESTS AND SKILLS

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

Computer languages: C, C++,Tcl

Nanofabrication techniques (etching, e-beam lithography, etc)

Music instruments: guitar and flute

Music, independent film, and literature

PUBLICATIONS

Over 80 in professional journals, cited 3347 times, h-index of 29 (as of Oct. 9 2009)

7 book chapters, one book in preparation

6 issued US patents, several pending

Over 100 invited talks and one plenary talk

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

PUBLICATIONS LIST

REFEREED JOURNAL PUBLICATIONS

In preparation

1. Hideo Iwase, Dirk Englund, and Jelena Vučković, “Analysis on Purcell effect for absorptive plasmonic crystals in picture of field damping of Bloch states,” to be submitted to *Optics Express* (2009)
2. Maria Makarova, Yiyang Gong, Selcuk Yerci, Rui Li, Luca Dal negro, and Jelena Vuckovic, “Linewidth narrowing in Er-doped photonic crystal cavities on a silicon nitride platform,” to be submitted to *Physical Review B* (2009)

Submitted

3. Yiyang Gong and Jelena Vuckovic, “Photonic Crystal Cavities in Silicon Dioxide,” submitted to *Applied Physics Letters* (2009)
4. Andrei Faraon, Arka Majumdar, and Jelena Vuckovic, “Deterministic generation of nonclassical states of light using photon blockade,” submitted to *Physical Review A* (2009)
5. Yiyang Gong, Selcuk Yerci, Rui Li, Luca Dal Negro, and Jelena Vuckovic, “Enhanced Light Emission from Erbium Doped Silicon Nitride in Metal-Insulator-Metal Configuration,” submitted to *Optics Express* (2009)
6. Kelley Rivoire, Ziliang Lin, Fariba Hatami, W. Ted Masselink, and Jelena Vuckovic, “Second harmonic generation in gallium phosphide photonic crystal nanocavities with ultralow continuous pump power,” submitted to *Nature Photonics* (2009)
7. Arka Majumdar, Carter Lin, Andrei Faraon, and Jelena Vuckovic, “Fast, high fidelity quantum dot spin initialization without a strong magnetic field by two photon processes,” submitted to *Phys. Rev. A* (2009)
8. Jeremy O’Brien, Akira Furusawa, and Jelena Vuckovic, “Photonic quantum technologies,” invited article, *Nature Photonics* (2009)
9. Carter Lin and Jelena Vuckovic, “Two-Photon Absorption and Emission in Quantum Dots coupled to Photonic Crystal Nanocavities,” submitted to *Phys. Rev Letters* (2009)
10. Andrei Faraon, Arka Majumdar, Hyochul Kim, Pierre Petroff and & Jelena Vuckovic, “Fast Electrical Control via Quantum Confined Stark Effect of a Strongly Coupled Quantum Dot in a Nano-Resonator,” submitted to *Physical Review Letters* (2009)
11. Dirk Englund, Arka Majumdar, Andrei Faraon, Mitsuru Toishi, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, “Resonant excitation of a strongly coupled quantum dot-cavity system,” submitted to *Physical Review Letters* (2009)

Published

12. Dirk Englund, Andrei Faraon, Arka Majumdar, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic “An optical modulator based on a strongly coupled quantum dot-cavity system in a p-i-n junction,” *Optics Express*, Vol. 17, pp 18651-18658 (2009)
13. Kelley Rivoire, Anika Kinkhabwala, W.E. Moerner, Jelena Vuckovic, Fariba Hatami, Yuri Avlasevich, Klaus Müllen , “Lithographic Positioning of Fluorescent Molecules on High-Q Photonic Crystal Cavities,” *Applied Physics Letters*, Vol. 95, 123113 (2009)
14. Dirk Englund, Bryan Ellis, Tomas Sarmiento, Elizabeth Edwards, David A. B. Miller, James Harris, and Jelena Vuckovic, “Electrically controlled optical modulation in a photonic crystal circuit,” *Optics Express*, Vol. 17, pp 15409-15419 (2009)
15. Mitsuru Toishi, Dirk Englund, Andrei Faraon, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, “High-brightness single photon source from a quantum dot in a directional-emission nanocavity,” *Optics Express*, Vol. 17, Issue 17, pp. 14618-14626 (2009)
16. Maria Makarova, Yiyang Gong, Szu-Lin Cheng, Yoshio Nishi, Selcuk Yerci, Rui Li, Luca Dal Negro, and Jelena Vuckovic, “Photonic Crystal and Plasmonic Silicon Based Light Sources,” to appear in *IEEE Journal on Selected Topics in Quantum Electronics, Special Issue on Silicon Photonics* (2009)
17. Andrei Faraon , Jelena Vuckovic, “Local temperature control of photonic crystal devices via micron-scale electrical heaters,” *Applied Physics Letters*, vol. 95, 043102 (2009)
18. Szu-Lin Cheng, Jesse Lu, Gary Shambat, Hyun-Yong Yu, Krishna Saraswat, Jelena Vuckovic, and Yoshio Nishi, “Room temperature 1.6 μm electroluminescence from Ge light emitting diode on Si substrate,” *Optics Express* Vol. 17, No. 12, pp.10019-10024 (2009)
Also featured in Stanford School of Engineering News, Slashdot.org, Laser Focus World.
19. Dirk Englund, Hatice Altug, and Jelena Vuckovic, “Time-resolved lasing action from single and coupled photonic crystal nanocavity array lasers emitting in the telecom band,” *Journal of Applied Physics*, vol. 105, 093110 (2009)
20. Dirk Englund, Andrei Faraon, Ilya Fushman & Jelena Vuckovic, “Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics,” special issue of "Photonics and Nanostructures: Fundamentals and Applications (PNFA)," vol. 7, pp. 56–62 (2009)
21. Yiyang Gong, Jesse Lu, Szu-Lin Cheng, Yoshio Nishi, and Jelena Vuckovic, “Plasmonic enhancement of emission from silicon nanocrystals,” *Applied Physics Letters*, Vol. **94**, 013106 (2009)
22. Kelley Rivoire, Andrei Faraon, and Jelena Vuckovic, “Gallium-Phosphide Photonic Crystal Nanocavities in the Visible,” *Applied Physics Letters*, Vol. 93, article 063103 (2008)
23. Andrei Faraon, Ilya Fushman, Dirk Englund, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, “Dipole induced transparency in waveguide coupled photonic crystal cavities,” *Optics Express*, Vol. 16, pp. 12154-12162 (2008)
24. Andrei Faraon, Ilya Fushman, Dirk Englund, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, “Coherent generation of nonclassical light on a chip via photon-induced tunneling and blockade,” *Nature Physics*, Vol. 4, pp. 859 - 863 (2008)

25. Ilya Fushman, Dirk Englund, Andrei Faraon, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Controlled phase shift with a single quantum dot," *Science*, vol. 320, number 5877, pp. 769-772 (2008)
Highlighted in Stanford Report, Compound Semi News, Technology Research News, photonics.com, Semiconductor International, physorg.com,
26. Maria Makarova, Vanessa Sih, Joe Warga, Rui Li, Luca Dal Negro, and Jelena Vuckovic, "Enhanced light emission in photonic crystal nanocavities with Erbium-doped silicon nanocrystals," *Applied Physics Letters*, vol. 92, article 161107 (2008)
27. Ilya Fushman, Dirk Englund, Andrei Faraon, Jelena Vuckovic, "Probing the Interaction Between a Single Quantum Dot And a Photonic Crystal Cavity," *Physica Status Solidi (c)*, Vol. 5, No. 9, 2808–2815 (2008)
28. Dirk Englund, Hatice Altug, Bryan Ellis, and Jelena Vuckovic, "Ultrafast Photonic Crystal Lasers," Invited Article for *Lasers and Photonics Review*, Volume 2, No. 4, pp 264-274 (2008)
29. Andrei Faraon, Dirk Englund, Barry Luther-Davies, Douglas Boulla, Benjamin J. Eggleton, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Local tuning of photonic crystal cavities using chalcogenide glasses," *Applied Physics Letters*, vol. 92, 043123, January 2008
30. Hideo Iwase, Dirk Englund, and Jelena Vuckovic, "Spontaneous emission control in high extraction efficiency plasmonic crystals," *Optics Express*, vol. 16, Issue 1, pp. 426-434, Jan. 2008
31. Dirk Englund, Andrei Faraon, Ilya Fushman, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Controlling cavity reflectivity with a single quantum dot," *Nature*, vol. 450, No. 7171, pp. 857-861, December 2007
Highlighted in Photonics Spectra (Feb. 2008), Stanford Report (Jan. 2008), optics.org, Heise Computer Magazine, ONR Navigator, OLE Magazine etc.
32. Dirk Englund, Hatice Altug, and Jelena Vuckovic, "Low-Threshold Surface-Passivated Photonic Crystal Nanocavity Laser," *Applied Physics Letters*, Vol. 91, 071124, August 2007
33. Dirk Englund, Hatice Altug, Ilya Fushman, and Jelena Vuckovic, "Efficient Terahertz Room-Temperature Photonic Crystal Nanocavity Laser," *Applied Physics Letters*, Vol. 91, 071126, August 2007
Highlighted in Laser Focus World, October 2007 issue
34. Joel Goh, Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Genetic optimization of photonic bandgap structures," *Optics Express*, Vol. 15, 8218-8230, June 2007
35. Andrei Faraon, Dirk Englund, Ilya Fushman, Jelena Vuckovic, Nick Stoltz, Pierre Petroff, "Local Quantum Dot tuning on photonic crystal chips," *Applied Physics Letters*, Vol. 90, 213110, May 2007
Highlighted by Science Magazine, Vol. 316, p1395, June 8, 2007
36. Dirk Englund, Andrei Faraon, Bingyang Zhang, Yoshihisa Yamamoto, and Jelena Vuckovic, "Generation and transfer of single photons on a photonic crystal chip," *Optics Express*, Vol. 15, pp. 5550-5558, April 2007

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

48. Edo Waks and Jelena Vuckovic, "Dipole Induced Transparency in drop

filter cavity-waveguide systems," *Physical Review Letters*, Vol. 96, article 153601 (April 2006).

49. Jelena Vuckovic, Dirk Englund, David Fattal, Edo Waks, and Yoshihisa Yamamoto, "Generation and Manipulation of Nonclassical Light Using Photonic Crystals," *Physica E*, Vol. 32, No. 1-2, pp.466-470, May 2006.
50. Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Coupling of PbS Quantum Dots to Photonic Crystal Cavities at Room Temperature," *Appl. Phys. Lett.*, Vol. 87, Article 241102, Dec. 2005.
51. Hatice Altug and Jelena Vuckovic, "Photonic Crystal Nanocavity Array Laser," *Optics Express*, Vol. 13, No. 22, pp. 8819-8828, Oct. 2005.
 Also featured in Stanford Report, "Faster, More Efficient Laser Created for Communications," David Orenstein, Nov. 9, 2005, p. 3 (available from <http://news.stanford.edu/>), *Stanford Daily*, *Photonics Magazine* (photonics.com, 11/08/2005), *Physorg.com*, *ScienceDailyNews.com*, *Telephony magazine*, (telephonyonline.com), *Laser Focus World* (Jan. 2006), *Photonics Spectra Magazine*, Jan. 2006.
52. Dirk Englund, Ilya Fushman, and Jelena Vuckovic, "General Recipe for Designing Photonic Crystal Cavities," *Optics Express*, Vol. 13, No. 16, pp. 5961-5975, Aug. 2005.
 Also featured in Research Highlights in Optics in Nature: Caught Behind Bars, *Nature*, Vol. 436, pp. 1069, Aug. 25, 2005, and in *Nature Physics*: Henri Benisty, Photonic Crystals: New Designs to Confine Light, *Nature Physics*, Vol. 1, pp. 9, Oct. 2005.
53. Dirk Englund, David Fattal, Edo Waks, Glenn Solomon, Bingyang Zhang, Toshihiro Nakaoka, Yasuhiko Arakawa, Yoshihisa Yamamoto, and Jelena Vuckovic, "Controlling the Spontaneous Emission Rate of Single Quantum Dots in a 2D Photonic Crystal," *Phys. Rev. Lett.*, Vol. 95, 013904, Jul. 2005.
 Also featured in *Nature Photonics*, vol. 1, pp. 449-458, August 2007: "Spontaneous emission control by photonic crystals and nanocavities," by Susumu Noda.
54. E. Waks and J. Vuckovic, "Coupled Mode Theory for Photonic Crystal Cavity-Waveguide Interaction," *Optics Express*, Vol. 13, No. 13, pp. 5064-5073, June 2005.
55. H. Altug and J. Vuckovic, "Experimental Demonstration of the Slow Group Velocity of Light in Two-Dimensional Coupled Photonic Crystal Microcavity Arrays," *Appl. Phys. Lett.*, Vol. 86, Article 111102, Mar. 2005.
 Also featured as a news story on Physics Web, the web portal of *Physics World*: Photonic crystals slow down light, by Belle Dume (<http://physicsweb.org/Articles/news/9/3/10/1/>), and in the April 2005 issue of the *Physics World* (<http://physicsweb.org/Articles/world/>).
56. B. Zhang, G. S. Solomon, M. Pelton, J. Plant, C. Santori, J. Vuckovic, and Y. Yamamoto, "Fabrication of InAs Quantum Dots in AlAs/GaAs DBR Pillar Microcavities for Single Photon Sources," *J. Appl. Phys.*, Vol. 97, Article 073507, Mar. 2005.
57. Y. Yamamoto, C. Santori, G. Solomon, J. Vuckovic, D. Fattal, E. Waks, and E. Diamanti, "Single Photons for Quantum Information Systems," *Progress in Informatics* No. 1, pp. 5-37, Jan. 2005.

58. H. Altug and J. Vuckovic, "Polarization Control and Sensing With Two-Dimensional Coupled Photonic Crystal Microcavity Arrays," *Opt. Lett.*, Vol. 30, No. 9, pp. 982-984, May 2005.
59. H. Altug and J. Vuckovic, "Two-Dimensional Coupled Photonic Crystal Resonator Arrays," *Appl. Phys. Lett.*, Vol. 84, pp. 161-163, Jan. 2004.
60. D. Fattal, K. Innoue, J. Vuckovic, C. Santori, G. Solomon, and Y. Yamamoto, "Entanglement Formation and Violation of Bell's Inequality With a Semiconductor Single Photon Source," *Phys. Rev. Lett.*, Vol. 92, Article 037903, Jan. 2004.
61. M. Loncar, T. Yoshie, K. Okamoto, Y. Qiu, J. Vuckovic, and A. Scherer, "Planar Photonic Crystal Nanolasers (I): Porous Cavity Lasers," *IEICE Trans. on Electronics*, Vol. E87-C, No. 3, pp. 291-299, Mar. 2004.
62. C. Santori, D. Fattal, J. Vuckovic, G. Solomon, E. Waks, and Y. Yamamoto, "Sub-Microsecond Correlations in Photoluminescence From InAs Quantum Dots," *Phys. Rev. B*, Vol. 69, 205324, (May 2004).
63. P. Kumar, P. Kwiat, A. Migdall, S. W. Nam, J. Vuckovic, and F. N. C. Wong, "Photonic Technologies for Quantum Information Processing," Special Issue on *Focused on Quantum Computing*, Vol. 3, No. 1, pp. 215-231, Oct. 2004.
64. C. Santori, D. Fattal, J. Vuckovic, G. Solomon, and Y. Yamamoto, "Single-Photon Generation With InAs Quantum Dots," *New Journal of Physics*, Focus Issue on "Single Photons on Demand," Vol. 6, Article 89, Jul. 2004.
65. M. F. Yanik, H. Altug, J. Vuckovic and S. Fan, "Sub-Micron All-Optical Digital Memory and Integration of Nanoscale Photonic Devices Without Isolators," *J. Lightwave Technol.*, Vol. 22, No. 10, pp. 2316-2322, Oct. 2004.
66. C. Santori, D. Fattal, J. Vuckovic, G. S. Solomon, and Y. Yamamoto, "Generation of Single Photons and Correlated Photon Pairs Using InAs Quantum Dots," *Fortschritte der Physik-Progress of Physics*, Vol. 52, No. 11-12, pp. 1180-1188, Oct. 2004.
67. D. Fattal, C. Santori, J. Vuckovic, G. S. Solomon, and Y. Yamamoto, "Indistinguishable Single Photons From a Quantum Dot," *Physica Status Solidi B*, Vol. 238, No. 2, pp. 305-308, Jul. 2003.
68. J. Vuckovic, D. Fattal, C. Santori, G. Solomon, and Y. Yamamoto, "Enhanced Single Photon Emission from a Quantum Dot in a Micropost Microcavity," *Appl. Phys. Lett.*, Vol. 82, No. 21, pp. 3596-3598, May 2003.
69. J. Vuckovic and Y. Yamamoto, "Photonic Crystal Microcavities for Cavity Quantum Electrodynamics with a Single Quantum Dot," *Appl. Phys. Lett.*, Vol. 82, No. 15, pp. 2374-2376, Apr. 2003.
70. M. Pelton, J. Vuckovic, G. Solomon, C. Santori, B. Y. Zhang, J. Plant, and Y. Yamamoto, "An Efficient Source of Single Photons: A Single Quantum Dot in a Micropost Microcavity," *Physica E*, Vol. 17, (1-4) pp. 564-567, Apr. 2003.
71. A. Scherer, T. Yoshie, M. Loncar, J. Vuckovic, K. Okamoto, and D. Deppe, "Photonic Crystal Nanocavities for Efficient Light Confinement and Emission," *J. Korean Physical Society*, Vol. 42, Supplement S, pp. 768-773, Feb. 2003.

72. E. Waks, K. Inoue, C. Santori, D. Fattal, J. Vuckovic, G. Solomon, and Y. Yamamoto, "Secure Communication: Quantum Cryptography With a Photon Turnstile," *Nature*, Vol. 420, (6917), p. 762, Dec. 2002.
73. M. Pelton, C. Santori, J. Vuckovic, B. Zhang, G. S. Solomon, J. Plant, and Y. Yamamoto, "An Efficient Source of Single Photons: a Single Quantum Dot in a Micropost Microcavity," *Phys. Rev. Lett.*, Vol. 89, No. 23, Article 233602, Dec.2002.
74. C. Santori, D. Fattal, J. Vuckovic, G. S. Solomon, and Y. Yamamoto, "Indistinguishable Photons From a Single-Photon Device," *Nature*, Vol. 419, (6907), pp. 594-597, Oct. 2002.
Also featured in the News and Views article by P. Grangier in the same issue of *Nature*: "Single photons stick together"
75. J. Vuckovic, M. Pelton, Y. Yamamoto, and A. Scherer, "Optimization of Three-Dimensional Micropost Microcavities for Cavity Quantum Electrodynamics," *Phys. Rev. A*, Vol. 66, No. 2, Article 023808, Aug. 2002.
76. J. Vuckovic, M. Loncar, H. Mabuchi, and A. Scherer, "Optimization of Q-factor in photonic crystal microcavities," *IEEE Journal of Quantum Electronics*, Vol. 38, No. 7, pp. 850-856, Jul. 2002.
77. A. Scherer, O. Painter, J. Vuckovic, M. Loncar, and T. Yoshie, "Photonic Crystals for Confining, Guiding, and Emitting Light," *IEEE Trans. on Nanotechnology*, Vol. 1, No. 1, pp 4-11, Mar. 2002.
78. M. Loncar, D. Nedeljkovic, T. P. Pearsall, J. Vuckovic, A. Scherer, S. Kuchinsky, and D. C. Allan, "Experimental and Theoretical Confirmation of Bloch-Mode Light Propagation in Planar Photonic Crystal Waveguides," *Appl. Phys. Lett.*, Vol. 80, No. 10, pp. 1689-1691, Mar. 2002.
79. M. Pelton, J. Vuckovic, G. S. Solomon, A. Scherer, and Y. Yamamoto, "Three Dimensionally Confined Modes in Micropost Microcavities: Quality Factors and Purcell Factors," *IEEE J. Quantum Electronics*, Vol. 38, No.2, pp. 170-177, Feb. 2002.
80. J. Vuckovic, M. Loncar, H. Mabuchi, and A. Scherer "Design of Photonic Crystal Microcavities for Cavity QED," *Phys. Rev. E*, Vol. 65, Part 2, Article 016608, Jan. 2002.
81. T. Yoshie, J. Vuckovic, A. Scherer, H. Chen, and D. Deppe, "High Quality Two Dimensional Photonic Crystal Slab Cavities," *Appl. Phys. Lett.*, Vol. 79, No. 26, pp. 4289-4291, Dec. 2001.
82. H. Mabuchi, M. Armen, B. Lev, M. Loncar, J. Vuckovic, H. J. Kimble, J. Preskill, M. Roukes, A. Scherer, "Quantum Networks Based on Cavity QED," *Quantum Information and Computation*, Vol. 1, Special Issue on "Implementation of Quantum Computation," pp. 7-12 (Month not available, 2001).
83. M. Loncar, J. Vuckovic and A. Scherer, "Methods for Controlling Positions of Guided Modes in Photonic Crystal Waveguides," *J. Optical Society of America B*, Vol. 18, No. 9, pp. 1362-1368, Sep. 2001.
84. B. Vucetic, V. Ponampalam, and J. Vuckovic, "Low Complexity Soft-Decision Decoding Algorithms for Reed-Solomon Codes," *IEICE Trans. Communications* (Special Issue on Innovative Mobile Communication Technologies at the Dawn of the 21st Century),

Vol. E84-B, pp. 392-399, Mar. 2001.

85. J. Vuckovic, M. Loncar, and A. Scherer, "Surface Plasmon Enhanced Light Emitting Diode," *IEEE J. Quantum Electronics*, Vol. 36, No. 10, pp. 1131-1144, Oct. 2000.
86. M. Loncar, T. Doll, J. Vuckovic, and A. Scherer, "Design and Fabrication of Silicon Photonic Crystal Optical Waveguides," *J. Lightwave Technol.*, Vol. 18, No. 10, pp. 1402-1411, Oct. 2000.
87. M. Loncar, D. Nedeljkovic, T. Doll, J. Vuckovic, A. Scherer, and T. P. Pearsall, "Waveguiding in Planar Photonic Crystals," *Appl. Phys. Lett.*, Vol. 77, No. 13, pp. 1937-1939, Sep. 2000.
88. T. Doll, J. Vuckovic, M. Hochberg, and A. Scherer, "Low-Energy Electron Beam Focusing in Self-Organized Porous Alumina Vacuum Windows," *Appl. Phys. Lett.*, Vol. 76, No. 24, pp. 3635-3637, Jun. 2000.
89. J. Vuckovic, O. Painter, Y. Xu, A. Yariv, and A. Scherer, "Finite-Difference Time-Domain Calculation of the Spontaneous Emission Coupling Factor in Optical Microcavities," *IEEE J. Quantum Electron.*, Vol. 35, No. 8, pp.1168-1174, Aug. 1999.
90. Y. Xu, J. S. Vuckovic, R. K. Lee, O. J. Painter, A. Scherer, and A. Yariv, "Finite-Difference Time Domain Calculation of Spontaneous Emission Lifetime in a Microcavity," *J. Optical Society of America B*, Vol. 16, , No. 3, pp. 465-474, Mar. 1999.
91. O. Painter, J. Vuckovic, and A. Scherer, "Defect Modes of a Two-Dimensional Photonic Crystal in an Optically Thin Dielectric Slab," *J. Optical Society of America B*, Vol. 16, No. 2, pp. 275-285, Feb. 1999.

NON-REFEREED JOURNAL PUBLICATIONS

92. Dirk Englund, Andrei Faraon, Ilya Fushman, and Jelena Vuckovic, "Single photon nonlinear optics on photonic crystal chips," *SPIE Newsroom*, January 2009
93. Barry Sanders, Jelena Vuckovic and Philippe Grangier, "Single Photons on Demand," *Europhysics News*, Vol. 36, No. 2, pp. 56-58, March/April 2005.
94. Dirk Englund, Andrei Faraon, Ilya Fushman, and Jelena Vuckovic, "Quantum information processing on photonic crystal chips," *SPIE Newsroom*, January 2008

BOOKS

95. J. Vuckovic, "Nanophotonic devices," in preparation, Springer-Verlag, 2008

BOOK CHAPTERS

96. H. Iwase, Y. Gong, D. Englund, and J. Vuckovic, "Spontaneous emission control in a plasmonic structure," *Invited Book chapter*, JSPS Winter School on Nanophotonics, to be published by Springer Verlag (2008)

97. D. Englund, A. Faraon, I. Fushman, B. Ellis, and J. Vuckovic, "Physics and applications of quantum dots in photonic crystals," *Invited book chapter in "Single Semiconductor Quantum Dots,"* edited by Peter Michler, Springer Book series on NanoScience and Technology," Springer (2008)
98. J. Vuckovic, D. Englund, A. Faraon, I. Fushman, and E Waks, "Quantum Information Processing With Quantum Dots in Photonic Crystals," *Invited book chapter in "Semiconductor Quantum Bits,"* edited by Oliver Benson and Fritz Henneberger, Pan Stanford Publishing (2008)
99. C. Santori, D. Fattal, J. Vuckovic, M. Pelton, G. Solomon, E. Waks, D. Press, Y. Yamamoto, "Pillar microcavities," *Invited book chapter in "Practical applications of microresonators in optics and photonics,"* edited by A. Matsko, CRC (2009)
100. P. Kumar, P. Kwiat, A. Migdall, S.W. Nam, J. Vuckovic, and F.N.C. Wong, "Photonic Technologies for Quantum Information Processing," *Invited book chapter in "Experimental Aspects of Quantum Computing,"* edited by Henry Everitt, Springer (2005)
101. J. Vuckovic, C. Santori, D. Fattal, M. Pelton, G. Solomon, and Y. Yamamoto, "Cavity Enhanced Single Photons From a Quantum Dot," *Invited book chapter in Optical Microcavities,* Ed: Kerry Vahala (World Scientific, 2004).
102. Y. Yamamoto, M. Pelton, C. Santori, G. S. Solomon, O. Benson, J. Vuckovic, and A. Scherer, "Regulated Single Photons and Entangled Photons From a Quantum Dot Microcavity," *Invited book chapter in Semiconductor Spintronics and Quantum Computation,* Eds: D. D. Awschalom, D. Loss, and N. Samarth, pp. 277-305 (Springer-Verlag, Berlin, Heidelberg, 2002).

PATENTS

103. Dirk Englund, Ilya Fushman, Andrei Faraon, and Jelena Vuckovic, "Ultrafast, ultralow threshold single emitter optical switch," Stanford disclosure S07-282, US nonprovisional patent filed (September 2009)
104. A. Faraon, I. Fushman, D. Englund, and J. Vuckovic, "Optical Cavity Emitter Arrangements With Spectrally-Aligned Quantum Dots And Methods Therefor," Stanford disclosure S07-078 (US patent filed, June 6, 2008, Serial Number 12/134,414)
105. E. Waks and J. Vuckovic, "Dipole induced transparency in photonic crystal cavity-waveguide system," Stanford disclosure S05-380 (US patent filed, Oct. 2007, Serial number 11/977,244; Issues Nov. 2nd 2009)
106. I. Fushman, D. Englund, and J. Vuckovic, "A Simple and Reusable Method for Controllable Coupling of Colloidal Quantum Dots and Other Nanocrystals to Photonic Crystals," Stanford disclosure S05-197 (US patent filed, May 2007)
107. H. Altug and J. Vuckovic "Coupled photonic crystal resonator array arrangements and applications," US patent No. 7,206,488, Issued on April 17, 2007 (Stanford disclosure S03-238)

- 108. J. Vuckovic and Y. Yamamoto "Half-Wavelength Micropost Microcavity With Electric Field Maximum in the High-Refractive-Index Region," US patent No. 7,292,613, issued on Nov. 6, 2007 (Stanford disclosure S02-806)
- 109. M. Loncar, J. Vuckovic, and A. Scherer, "Methods for Controlling Positions of Guided Modes of the Photonic Crystal Waveguides," U.S. Patent No. 6,944,384, Issued Sept. 13, 2005.
- 110. A. Scherer and J. Vuckovic, "High Resolution Electron Projection," U.S. Patent No. 6,515,292, Issued February 4, 2003.
- 111. A. Scherer, J. Vuckovic, and M. Loncar, "Surface Plasmon Enhanced LED and the Method of Operation of the Same," U.S. Patent No. 6,534,798, Issued March 18, 2003.
- 112. A. Scherer, J. Vuckovic, M. Loncar, and H. Mabuchi, "Photonic Crystal Microcavities for Strong Coupling Between an Atom and the Cavity Field," U.S. Patent No. 6,466,709, Issued October 15, 2002.

PLENARY TALKS

- 113. 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.

INVITED TALKS AT MAJOR INTERNATIONAL CONFERENCES

- 114. 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
- 115. 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
- 116. Jelena Vuckovic, Quantum information processing with quantum dots in photonic crystals, *International Conference on Quantum Information and Technology*, National Institute of Informatics, Tokyo, Japan, Dec. 3-5, 2009.
- 117. Jelena Vuckovic, "Photonic crystal cavities doped with Erbium and other (artificial) atoms and molecules," *OSA Frontiers in Optics*, San Jose, CA, Oct. 11-15, 2009
- 118. 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
- 119. 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

120. 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
121. Jelena Vuckovic, "Cavity QED in photonic crystals: from quantum information processing to single photon nonlinear optics," *PECSVIII (8th International Photonic & Electromagnetic Crystal Structures Meeting)*, Sydney, Australia, April 5-9th, 2009.
122. 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)
123. 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
124. 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
125. 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
126. Dirk Englund, Jelena Vuckovic, "Classical and quantum light sources based on photonic crystals," *SPIE Optics and Photonics Meeting*, San Diego, Aug. 10-14, 2008
127. 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
128. 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
129. 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
130. 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

131. 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
132. 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
133. Jelena Vuckovic, Hatice Altug, Dirk Englund, and Bryan Ellis, "Coupled photonic crystal nanocavity arrays," *CLEO/EUROPE-IQEC 2007*, Munich, Germany, 17 – 22 June 2007
134. 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.
135. Hatice Altug, Dirk Englund and Jelena Vučković, "High Speed Dynamics of Photonic Crystal Nanocavity Laser," *IEEE LEOS Annual Meeting*, Montreal, Canada, Nov. 2006
136. 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.
137. Edo Waks, Dirk Englund, Andrei Faraon, Ilya Fushman, Jelena Vuckovic "Nanophotonic devices for quantum information processing," *Third Feynman Festival*, University of Maryland, August 2006.
138. 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.
139. 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.
140. 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.
141. 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.
142. 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.

143. 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.
144. 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.
145. Edo Waks, Dirk Englund, David Fattal, and Jelena Vuckovic, "Photonic-crystal based single photon source," *SPIE Annual Meeting*, San Diego, CA, July 2005
146. Jelena Vuckovic, "Quantum Dot-Photonic Crystal Devices and Circuits for Quantum Information Processing," *Quantum Communications Research Conference (QCRC)*, Boulder, CO, June 1-3, 2005.
147. 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.
148. Jelena Vuckovic, "Photonic Crystal Devices for Quantum and Nanoscale Photonics," *American Physical Society (APS) March Meeting*, Los Angeles, CA, March 2005.
149. Jelena Vuckovic, "Nanophotonic Devices for Quantum Information Science," *Gordon Research Conference on Quantum Information Science*, Ventura, CA, Feb. 2005.
150. 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.
151. 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.
152. 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.
153. 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.
154. 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.
155. 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.

156. 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.
157. 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.
158. 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.
159. 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.
160. 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

161. J. Vuckovic, "Silicon Nanophotonics," *Frontiers in Optics/Laser Science, XXV annual meeting*, San Jose, CA from October 11-15, 2009.
162. 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

163. Jelena Vuckovic, International Workshop and School on Solid State Based Quantum Information Processing (QIP 2009), Lake Herring, Munich, July, 2009.
164. Jelena Vuckovic, Summer School "Nanoscience in Paris-Ile de France, June 22-26
165. Jelena Vuckovic, Frontiers in Nanoscale Science and Technology Workshop, Harvard University, Cambridge, MA, May 29-31, 2009
166. 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
167. Dirk Englund, Jelena Vuckovic, *Nanoscience Winterschool*, St. Anton, Arlberg, Austria, March 1-7, 2009.
168. Andrei Faraon and Jelena Vuckovic, workshop on Optical approaches to Topological Cluster State Computing, National Institute for Informatics (NII), Tokyo, Japan (Dec. 2008)

169. Yiyang Gong and Jelena Vuckovic, "Plasmonic enhancement of emission from silicon nanocrystals," G-COE International Symposium for Young Scientists, Kyoto, Japan, October 2008
170. Andrei Faraon, Jelena Vuckovic, Dirk "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
171. 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.
172. 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
173. 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.
174. 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
175. 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
176. 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.
177. Jelena Vuckovic, "Nanophotonic chips for optical interconnects and quantum communication," *CIS Spring Round Table and Review*, Stanford, May 2007
178. Jelena Vuckovic, "Nanophotonic chips for optical interconnects and quantum communication," French-Californian Workshop on Nanophotonics, Stanford March 19th
179. Jelena Vuckovic, "Photonic crystal chips for classical and quantum information processing," *Stanford-NEC Day*, Stanford University, Feb. 16 2007.
180. Hatice Altug and Jelena Vuckovic, "Photonic crystal devices for nano- and biophotonics," *NNIN review*, U. of Texas in Austin, Feb. 2006.
181. Jelena Vuckovic, "Photonic Crystal Devices for Optical Interconnects," *MARCO Interconnect Focus Center (IFC) Workshop*, Stanford University, Stanford, CA March 2006.
182. 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.
183. 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.

184. 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.
185. 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.
186. 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.
187. Jelena Vuckovic, "Quantum optical devices based on quantum dots in photonic crystals," *International Symposium on Quantum Entanglement*, Stanford University, Stanford, CA, December 2003.
188. Jelena Vuckovic, "Quantum optical devices based on quantum dots in microcavities," *Quantum Enabled Science and Technology (QUEST) Workshop*, Santa Fe, NM, August 2003.
189. Jelena Vuckovic, "Quantum information applications of microcavities," *NSF DARPA Photonics Technology Access Program (PTAP) Optical Microresonators Workshop*, San Diego, CA July 2003.
190. 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.
191. Jelena Vuckovic, "Paradigm shifts in devices for optoelectronics," *CIS Autumn Roundtables and advisory committee meetings*, Stanford University, Stanford, CA, November 2002.
192. 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.
193. Jelena Vuckovic, "Single photons and entangled photons from a quantum dot microcavity," *International Symposium on Quantum Entanglement*, College de France, Paris, France, June 2002.
194. Jelena Vuckovic, "Photonic bandgap materials," *CNOM (Center for Nonlinear Optical Materials) Annual Meeting*, Stanford University, Stanford, CA, September 2000.

INVITED COLLOQUIA AND SEMINARS

195. Jelena Vuckovic, "Classical and quantum information processing with quantum dots in photonic crystals," *University of Washington, Seattle, EE Seminar*, October 2009
196. Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," *Max Planck Institute for Quantum Optics*, Munich, Germany, July 2009

197. Jelena Vuckovic, "Classical and quantum information processing with quantum dots in photonic crystals," joint seminar between *Laboratoire Kastler Brossel with Laboratoire Pierre Aigrain*, Paris, France, June 2009
198. Jelena Vuckovic, "Classical and quantum information processing with quantum dots in photonic crystals," *LPN, CNRS*, Marcoussis, France, June 2009
199. Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," MIT, *Optics and Quantum Electronics Seminar*, Nov. 2008
200. 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
201. Jelena Vuckovic, "Quantum dots in photonic crystals: from quantum information processing to single photon nonlinear optics," Stanford University, *Ginzton Lab Seminar*, April 2008
202. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," Columbia University, *Department of Physics Colloquium*, November 2006.
203. Ilya Fushman and Jelena Vuckovic, "Quantum information processing with quantum dots in photonic crystals," UC Berkeley, *Quantum Computation Seminar*, April 2006.
204. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," University of Connecticut, Department of Physics, *Hascoe Lecture*, April. 2006.
205. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," Harvard University, *Engineering and Applied Science Seminar Series*, March 2006.
206. Jelena Vuckovic, "Photonic crystal devices for classical and quantum information processing," University of Toronto, *Optics and Quantum Optics Seminar*, March 2006.
207. Jelena Vuckovic, "Nanoscale and quantum photonic devices," Stanford University, *Electrical Engineering Graduate Seminar*, February 2006.
208. Jelena Vuckovic, "Generation and manipulation of classical and nonclassical light using photonic crystals," University of California Santa Barbara, *Materials Colloquium*, October 2005.
209. Jelena Vuckovic, "Generation and manipulation of classical and nonclassical light using photonic crystals," Caltech, *Joint EE-AP seminar*, May 2005.
210. Jelena Vuckovic, "Photonic crystal devices for quantum and nanoscale photonics," UC Berkeley, *AMO Seminar*, December 2004.
211. Jelena Vuckovic, "Photonic crystal devices for nanophotonics and quantum information processing," Harvard University, *Joint Atomic Physics Colloquium*, March 2004.
212. Jelena Vuckovic, "Photonic crystals and their applications in optoelectronics and quantum optics," Stanford University, Materials Science and Engineering Department, May 2003.

213. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Palo Alto Research Center (PARC), February 2003.
214. Jelena Vuckovic, "Quantum optical devices based on photonic crystals," Los Alamos National Laboratory, *Quantum Lunch Seminar Series*, January 2003.
215. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Princeton University, Electrical Engineering Department, April 2002.
216. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Stanford University, Electrical Engineering Department, April 2002.
217. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," California Institute of Technology (Caltech), Applied Physics Department, April 2002.
218. Jelena Vuckovic, "Optical and quantum optical devices based on photonic crystals," Massachusetts Institute of Technology (MIT), Electrical Engineering Department, March 2002.
219. Jelena Vuckovic, "Photonic crystals," Stanford University, Applied Physics Department, November 2001.
220. Jelena Vuckovic, "Photonic crystals," University of California San Diego, Electrical Engineering Department, April 2001.

REFEREED CONFERENCE PUBLICATIONS

221. Arka Majumdar, Andrei Faraon, Jelena Vuckovic, "Optimal pulse to generate non-classical photon states via photon blockade," *SPIE - Photonics West, Advances in Photonics of Quantum Computing, Memory, and Communication III*, San Francisco, CA, Jan. 23-28, 2010
222. Andrei Faraon, Arka Majumdar, Dirk Englund, Carter Lin, Jelena Vuckovic, "Integrated photonic crystal networks with coupled quantum dots," *SPIE - Photonics West, Advances in Photonics of Quantum Computing, Memory, and Communication III*, San Francisco, CA, Jan. 23-28, 2010
223. Andrei Faraon, Arka Majumdar, Hyochul Kim, Pierre Petroff, Jelena Vuckovic, "Electrically Driven Optical Modulator with a Strongly Coupled Quantum Dot," *OSA Frontiers in Optics*, San Jose, CA, Oct. 11-15, 2009
224. Yiyang Gong, Selcuk Yerci, Luca Dal Negro, and Jelena Vuckovic, "Plasmonic Metal-Insulator-Metal Structures for Interaction with Erbium in Amorphous Silicon Nitride," *OSA Frontiers in Optics*, San Jose, CA, Oct. 11-15, 2009
225. Arka Majumdar, Andrei Faraon, Dirk Englund, Jelena Vuckovic, "Quantum Dot Spectroscopy by means of Non-resonant Dot-Cavity Coupling," *OSA Frontiers in Optics*, San Jose, CA, Oct. 11-15, 2009
226. Ziliang Lin and Jelena Vuckovic, "Cavity-Enhanced Two-Photon Processes in Quantum Dots and Applications to Quantum Information Science," *OSA Frontiers in Optics*, San Jose, CA, Oct. 11-15, 2009

-
227. Maria Makarova, Yiyang Gong, Jelena Vuckovic, Selcuk Yerci, Rui Li, Luca Dal Negro, "Differential gain at 1530 nm in Er-doped silicon nitride coupled to photonic crystal cavity," 6th International IEEE Conference on Group IV Photonics, San Francisco, California, September 2009
 228. Yijie Huo, Hai Lin, Yiwen Rong, Maria Makarova, Theodore I. Kamins, Jelena Vuckovic, James S. Harris, "Direct Band Gap Tensile-Strained Germanium," *CLEO/QELS*, Baltimore, MD (May 2009)
 229. Dirk Englund, Andrei Faraon, Arka Majumdar, Ilya Fushman & Jelena Vuckovic, "Ultrafast All-Optical Switching with a Single Quantum Dot," *CLEO/QELS*, Baltimore, MD (May 2009)
 230. Yiyang Gong, Szu-Lin Cheng, Yoshio Nishi, and Jelena Vuckovic, "Plasmonic Metal-Insulator-Metal Structures for Interaction with Silicon Nanocrystals," *CLEO/QELS*, Baltimore, MD (May 2009)
 231. Ziliang Lin and Jelena Vuckovic, "Two-Photon Excitation and Emission in Quantum Dots coupled to Photonic Crystal Nanocavities," *CLEO/QELS*, Baltimore, MD (May 2009)
 232. Arka Majumdar, Andrei Faraon, Jelena Vuckovic, "Engineering Anti-bunching via Photon Blockade in Photonic Crystal Cavity-Quantum Dot Systems", *CLEO/QELS*, Baltimore, MD (May 2009)
 233. Bryan Ellis, Tomas Sarmiento, James Harris, and Jelena Vuckovic, "High Efficiency Solar Cells based on Spontaneous Emission Inhibition in Photonic Crystals," *CLEO/QELS*, Baltimore, MD (May 2009)
 234. Andrei Faraon, Arka Majumdar, Jelena Vuckovic, "Electrically controlled single quantum dot switching in photonic crystal resonators," *CLEO/QELS*, Baltimore, MD (May 2009)
 235. Kelley Rivoire, Anika Kinkhabwala, W.E. Moerner, Jelena Vuckovic, Fariba Hatami, Yuri Avlasevich, Klaus Müllen, "Probing High-Q Photonic Crystal Resonances With Fluorescent Molecules," *CLEO/QELS*, Baltimore, MD (May 2009)
 236. Bryan Ellis, Tomas Sarmiento, James Harris, and Jelena Vuckovic, "High Efficiency Solar Cells based on Spontaneous Emission Inhibition in Photonic Crystals," *PECS VIII*, Sydney, Australia (April 2009)
 237. Yiyang Gong, Jesse Lu, Szu-Lin Cheng, Yoshio Nishi, and Jelena Vuckovic, "Plasmonic gratings for interaction with quantum emitters," *IEEE LEOS Annual Meeting*, Newport Beach, CA (Nov. 2008)
 238. Dirk Englund, Andrei Faraon, Ilya Fushman, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Realization of giant optical nonlinearities in a quantum dot coupled to a nanocavity," *IEEE LEOS Annual Meeting*, Newport Beach, CA (Nov. 2008)
 239. Kelley Rivoire, Andrei Faraon, and Jelena Vuckovic, "Gallium Phosphide Photonic Crystal Nanocavities in the Visible," *IEEE LEOS Annual Meeting*, Newport Beach, CA (Nov. 2008)

240. Andrei Faraon, Ilya Fushman, Dirk Englund, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Dipole induced transparency in waveguide coupled photonic crystal cavities," *IEEE LEOS Annual Meeting*, Newport Beach, CA (Nov. 2008)
 Selected as one of the finalists for LEOS Best Student Paper Award
241. Andrei Faraon, Dirk Englund, Ilya Fushman, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Single photon nonlinear optics with quantum dots in photonic crystal resonators," *IEEE LEOS Annual Meeting*, Newport Beach, CA (Nov. 2008)
242. Dirk Englund, Andrei Faraon, Ilya Fushman, and Jelena Vuckovic, "Coherent access of a quantum dot strongly coupled to a nanocavity," MRS Fall Meeting, Boston, MA, USA, Oct. 2008.
 Note: selected as one of the finalists for MRS student award
243. Dirk Englund, Andrei Faraon, Ilya Fushman, and Jelena Vuckovic, "Quantum information processing on photonic crystal chips," Gordon Conference on Quantum Information, Big Sky Resort, Montana, USA, August 2008 [poster]
244. Andrei Faraon, Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Quantum dot - photonic crystal devices for quantum information processing," Gordon Conference on Quantum Information, Big Sky Resort, Montana, USA, August 2008 [poster]
245. Maria Makarova, Vanessa Sih, Joe Warga, Luca Dal Negro, and Jelena Vuckovic, "Enhanced Erbium Emission in Photonic Crystal Nanocavities," *CLEO-QELS*, San Jose, CA, May 2008
246. Ilya Fushman, Dirk Englund, Andrei Faraon, Jelena Vuckovic, "Probing a quantum dot in the weak coupling regime," *CLEO-QELS*, San Jose, CA, May 2008
247. Andrei Faraon, Dirk Englund, Douglas Bulla, Barry Luther-Davies, Benjamin J. Eggleton, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Local tuning of photonic crystal cavities using chalcogenide glasses," *CLEO-QELS*, San Jose, CA, May 2008
248. Dirk Englund, Andrei Faraon, Ilya Fushman, Nick Stoltz, Pierre Petroff, and Jelena Vuckovic, "Coherent Probing and Saturation of a Strongly Coupled Quantum Dot," *CLEO-QELS*, San Jose, CA, May 2008
249. Bryan Ellis, Ludovico Cademartiri, Geoff Ozin, and Jelena Vuckovic, "Si-based colloidal quantum dot photonic crystal light emitters at telecom wavelengths," *CLEO-QELS*, San Jose, CA, May 2008
250. Yiyang Gong and Jelena Vuckovic, "Plasmonic nanocavity for interaction with colloidal quantum dots," *CLEO-QELS*, San Jose, CA, May 2008
251. Hideo Iwase, Dirk Englund, and Jelena Vuckovic, "Spontaneous emission control in plasmonic crystal based on InP-TiO-Au-TiO-Si heterostructure," *JSPS-UNT Winter School on Nanophotonics*, University of North Texas, Feb. 2008

-
252. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, Yoshio Nishi, "Photoluminescence decay dynamics of silicon-rich silicon nitride films in photonic crystal nanocavity," *IEEE LEOS Annual Meeting*, Lake Buena Vista, Florida (Oct. 2007)
253. Bryan Ellis, Dirk Englund, Ilya Fushman, Bingyang Zhang, Yoshihisa Yamamoto, and Jelena Vuckovic, "Dynamics of quantum dot photonic crystal lasers," *Frontiers in Optics – Laser Science*, San Jose, CA (Oct. 2007) [paper LtuD4]
254. Dirk Englund, Andrei Faraon, Ilya Fushman, and Jelena Vuckovic, "Controlling cavity reflectivity with a single quantum dot," *Frontiers in Optics – Laser Science*, San Jose, CA – postdeadline paper (Oct. 2007)
255. Dirk Englund, Ilya Fushman, Jelena Vuckovic, Hatice Altug, "Terahertz Modulation Room-Temperature Photonic Crystal Nanocavity Laser," *Frontiers in Optics – Laser Science*, San Jose, CA (Oct. 2007) [paper FTuT3]
Selected as a finalist for Student Presentation Award
256. Dirk Englund, Hatice Altug, and Jelena Vuckovic, "Efficient Terahertz room-temperature photonic crystal laser," *CLEO Europe*, Munich 2007 [post deadline paper CP2-1-THU]
257. Dirk Englund, Ilya Fushman, and Jelena Vuckovic, "Analytic Photonic Crystal Cavity Design," *CLEO Europe*, Munich 2007 [poster CK-19-MON]
258. Yiyang Gong and Jelena Vuckovic, "Plasmon cavities for solid state cavity QED," *CLEO-QELS*, Baltimore, MD, Technical Digest CD-ROM, article QFC6, May 2007
259. Hideo Iwase and Jelena Vuckovic, "Analysis of the spontaneous emission rate enhancement by surface plasmons in a thin metallic layer embedded in semiconductor," *CLEO-QELS*, Baltimore, MD, Technical Digest CD-ROM, article JThD55, May 2007
260. Bryan Ellis, Dirk Englund, Ilya Fushman, Bingyang Zhang, Yoshihisa Yamamoto, and Jelena Vuckovic, "Dynamics of quantum dot photonic crystal lasers," *CLEO-QELS*, Baltimore, MD, Technical Digest CD-ROM, article CMM2, May 2007
261. Ilya Fushman, Dirk Englund, Jelena Vuckovic, Edo Waks, Nick Stoltz, and Pierre Petroff, "Ultrafast nonlinear optical tuning of photonic crystal cavities," *CLEO-QELS*, Baltimore, MD, Technical Digest CD-ROM, article CFQ2, May 2007
262. Andrei Faraon, Dirk Englund, Ilya Fushman, Jelena Vuckovic, Nick Stoltz, Pierre Petroff, "Local On-Chip Temperature Tuning of InGaAs Quantum Dots," *CLEO-QELS*, Baltimore, MD, Technical Digest CD-ROM, article CWN5, May 2007
263. Dirk Englund, Ilya Fushman, Jelena Vuckovic, "Analytic Photonic Crystal Cavity Design," *CLEO-QELS*, Baltimore, MD, Technical Digest CD-ROM, article CFH2, May 2007
264. Hatice Altug, Dirk Englund, Jelena Vuckovic, "Photonic crystal surface mode laser," *CLEO-QELS*, Baltimore, MD, Technical Digest CD-ROM, article JMC3, May 2007
265. H. Sanda, M Makarova, J. Hagemeyer, J. Mc Vittie, J. Vuckovic, and Y. Nishi, "Passivation effects on optical and material characteristics of silicon nanocrystals by high pressure water annealing and forming gas annealing," *MRS Spring Meeting*, San Francisco, 2007 [MRS Symposium Proceedings Vol. 1017E, paper DD17.8]

266. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, and Yoshio Nishi, "Silicon-based Photonic Crystal Nanocavity Light emitters", *IEEE LEOS Annual Meeting*, Proceedings p.2 pp, Montreal, Canada, Nov. 2006
267. Andrei Faraon, Edo Waks, Dirk Englund, and Jelena Vuckovic, "Theoretical and experimental investigation of efficient photonic crystal cavity-waveguide couplers," *IEEE LEOS Annual Meeting*, Proceedings pp. 2, Montreal, Canada, Nov. 2006
268. Hatice Altug, Dirk Englund and Jelena Vuckovic, "High Modulation Speed Photonic Crystal Nanocavity Array Laser," *CLEO/QELS*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article CMKK5, May 2006.
269. Nathan Jukam, Cristo Yee, Ilya Fushman, Jelena Vuckovic, and Mark S. Sherwin, "Patterned Femtosecond Laser Excitation of Terahertz Radiation in GaAs Photonic Crystals," *CLEO/QELS*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article CMS5, May 2006.
270. Dirk Englund, Stephan Goetzinger, Andrei Faraon, Jelena Vuckovic, and Yoshihisa Yamamoto, "An Efficient Source of Single Indistinguishable Photons," *CLEO/QELS*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article JTuC4, May 2006.
271. Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Design and Experimental Characterization of Photonic Crystal Cavities with Embedded Colloidal Quantum Dots," *CLEO/QELS*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article QWD4, May 2006.
272. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, and Yoshio Nishi, "Two Dimensional Porous Silicon Photonic Crystal Light Emitters," *CLEO/QELS*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article CF15, May 2006.
273. Edo Waks and Jelena Vuckovic, "Dipole Induced Transparency in Photonic Crystal Cavity Waveguide Systems," *CLEO/QELS*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article JTuC6, May 2006.
274. Andrei Faraon, Edo Waks, Dirk Englund, Ilya Fushman, and Jelena Vuckovic, "Fourier Space Design of Efficient Photonic Crystal Cavity-Waveguide Couplers," *CLEO/QELS*, Long Beach, CA, Technical Digest CD-ROM (ISBN:1-55752-813-6), article QFA4, May 2006.
275. Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Coupling of PbS Quantum Dots to Photonic Crystal Cavities at Room Temperature," *SPIE Annual Meeting*, Photonics West, San Jose, CA, Technical Digest CD-ROM, article 6128-34, Jan. 2005.
276. Hatice Altug and Jelena Vuckovic, "Applications of Photonic Crystal Microcavity Arrays," *SPIE Annual Meeting*, Photonics West, San Jose, CA, Technical Digest CD-ROM, article 6128-12, Jan. 2005.
277. H. Altug and J. Vuckovic, "Coupled Photonic Crystal Microcavity Array Laser," *IEEE LEOS Annual Meeting*, Sydney, Australia, Proceedings pp. 543-544, Oct. 2005.

This paper also received the Newport-LEOS best student paper award.

-
278. M. F. Yanik, H. Altug, J. Vuckovic, and S. Fan, "Sub-micron all optical memory and large scale integration in photonic crystals," *CLEO Europe*, pp. 588, Munich, Germany, May 2005
279. E. Waks and J. Vuckovic, "Cavity-Waveguide Interaction in Photonic Crystals," *Conference on Lasers and Electro-Optics (CLEO) and Quantum Electronics and Laser Science Conference (QELS)*, Baltimore, MD, *Technical Digest*, Vol. 1, p.16-18, May 2005.
280. D. Englund, D. Fattal, E. Waks, and J. Vuckovic, "Controlling Spontaneous Emission Rate in Solid State for Quantum Information Science," *Conference on Lasers and Electro-Optics (CLEO) and Quantum Electronics and Laser Science Conference (QELS)*, Baltimore, MD, *Technical Digest*, Vol. 1, p.410-412, May 2005.
281. H. Altug and J. Vuckovic, "Polarization Control With Two-Dimensional Coupled Photonic Crystal Microcavity Arrays," *Conference on Lasers and Electro-Optics (CLEO) and Quantum Electronics and Laser Science Conference (QELS)*, Baltimore, MD, *Technical Digest*, Vol. 1, p.418-420, May 2005.
282. Dirk Englund, David Fattal, Edo Waks, and Jelena Vuckovic, "Controlling Spontaneous Emission Rate in Solid State for Quantum Information Science," *69th Annual Meeting of German Physical Society in International Year of Physics*, Book of abstract, section Q.67.,4, p.59, Berlin, Germany, March 2005.
283. H. Altug and J. Vuckovic, "Experimental Demonstration of the Slow Group Velocity of Light in Two-Dimensional Coupled Photonic Crystal Microcavity Arrays," *MRS Fall Meeting*, B4.7, Book of abstract p. 39, Boston, MA, November 2004.
284. H. Altug and J. Vuckovic, "Two-Dimensional Coupled Photonic Crystal Resonator Arrays," *Proc. International Quantum Electronics Conf. (IQEC)/Conference on Lasers and Electro-Optics (CLEO)*, p. 1500, San Francisco, CA, May 2004.
285. E. Waks, K. Inoue, C. Santori, D. Fattal, J. Vuckovic, G. Solomon, and Y. Yamamoto, "Quantum Cryptography With a Single Photon Source," *Proc. SPIE Conf. on Quantum Communications and Quantum Imaging*, San Diego, CA, Vol. 5161, pp. 76-86, Aug. 2003.
286. Scherer, T. Yoshie, M. Loncar, J. Vuckovic, D. Deppe, and K. Okamoto, "2-D Photonic Crystal Microcavities," *Digest of LEOS Summer Topical Meetings*, Vancouver, BC, Canada, pp.TuA3.1/47, July 2003.
287. Santori, D. Fattal, J. Vuckovic, G. S. Solomon, and Y. Yamamoto, "Indistinguishable Single Photons From a Single-Quantum-Dot Microcavity," *Technical Digest of the Quantum Electronics and Laser Science (QELS) Conference*, Baltimore, MD, pp. 930-931, June 2003.
288. Santori, D. Fattal, J. Vuckovic, G. S. Solomon, and Y. Yamamoto, "Indistinguishable Single Photons From a Single-Quantum-Dot Microcavity," *Proc. SPIE – Photonics West, Conference: Laser Resonators and Beam Control*, San Jose, CA, Vol. 4969, pp.156-166, Jan. 2003.
289. Scherer, J. Vuckovic, M. Loncar, T. Yoshie, and K. Okamoto, "Photonic Bandgap Microcavity Devices," *Technical Digest of the Optical Fiber Communication Conference (OFC 2003)*, Atlanta, GA, Vol. 2, pp. 490, March 2003.

-
290. J. Vuckovic, C. Santori, D. Fattal, M. Pelton, G. Solomon, B. Zhang, J. Plant, and Y. Yamamoto, "Single Photons and Entangled Photons From a Quantum Dot," *Proc. IEEE International Electron Devices Meeting (IEDM 2002)*, San Francisco, CA, pp. 87-90, December 2002.
291. M. Loncar, T. Yoshie, J. Vuckovic, A. Scherer, H. Chen, D. Deppe, P. Gogna, Y. Qiu, D. Nedeljkovic, and T. P. Pearsall, "Nanophotonics Based on Planar Photonic Crystals," *Proc. IEEE LEOS Annual Meeting*, Glasgow, UK, Vol. 2, pp. 671-672, Nov. 2002.
292. T. Yoshie, J. Vuckovic, M. Loncar, H. Chen, D. Deppe, and A. Scherer, "Localized Modes With High Quality Factor Defined by Two-Dimensional Photonic Crystal Cavities," *Photonic and Electromagnetic Crystals Conference (PECS IV)*, Los Angeles, CA, p.20, Oct. 2002.
293. M. Loncar, J. B. Williams, J. Vuckovic, H. Mabuchi, and A. Scherer, "Experimental and Theoretical Characterization of H₂ PC Cavities Defined in Silicon on Insulator," *Photonic and Electromagnetic Crystals Conference (PECS IV)*, Los Angeles, CA, p.61, Oct. 2002.
294. Scherer, T. Yoshie, M. Loncar, J. Vuckovic, O. Painter, and D. Deppe, "Design, Fabrication, and Characterization of Photonic Crystal Nanocavities," *Photonic and Electromagnetic Crystals Conference (PECS IV)*, Los Angeles, CA, p.6, Oct. 2002.
295. G. S. Solomon, M. Pelton, J. Vuckovic, and Y. Yamamoto, "Single Optical Mode-Spontaneous Emission Coupling of a Quantum Dot in a Three-Dimensional Microcavity," *Proc. MBE-XII Conference*, San Francisco, CA, pp. 243-244, Sept. 2002.
296. J. Vuckovic, T. Yoshie, M. Loncar, H. Mabuchi, and A. Scherer, "Nano-Scale Optical and Quantum Optical Devices Based on Photonic Crystals," *Proc. IEEE Conference on Nanotechnology (IEEE-NANO 2002)*, Washington, DC, pp. 319-321, Aug. 2002.
297. T. Yoshie, J. Vuckovic, M. Loncar, A. Scherer, H. Chen, and D. Deppe, "Optical Characterization of High Quality Two Dimensional Photonic Crystal Cavities," *Technical Digest of the Conference on Lasers and Electro-Optics (CLEO 2002)*, Long Beach, CA, Vol. 1, pp. 191, May 2002 and *Technical Digest of the Quantum Electronics and Laser Science Conference (QELS 2002)*, Long Beach, CA, Vol. 1, pp. 75-76, May 2002.
298. M. Pelton, C. Santori, G. S. Solomon, Y. Yamamoto, J. Vuckovic, and A. Scherer, "An Efficient Source of Single Photons: A Single Quantum Dot in a Micropost Microcavity," *Technical Digest of the Quantum Electronics and Laser Science Conference (QELS 2002)*, Long Beach, CA, Vol. 1, pp. 97-98, May 2002.
299. J. Vuckovic and A. Scherer, "Optimization of the Q Factor in Optical Microcavities Based on Free Standing Membranes," *Proc. SPIE - Photonics West Meeting: Photonic Bandgap Materials and Devices*, San Jose, CA, Vol. 4655, pp. 192-199, Jan. 2002.
300. J. Vuckovic, M. Loncar, T. Yoshie, M. Armen, J. Williams, H. Mabuchi, and A. Scherer, "High-Q Optical Nanocavities in Planar Photonic Crystals," *Proc. SPIE, Photonics West Meeting: Laser Resonators and Beam Control V*, San Jose, CA, Vol. 4629, pp. 190-199, Jan. 2002.
301. Scherer, J. Vuckovic, M. Loncar, T. Yoshie, and O. Painter, "Photonic Crystal Nanocavities and Waveguides," *Proc. International Semiconductor Device Research Symposium*, Washington, DC, pp. 511-513, Dec. 2001.

-
302. Scherer, J. Vuckovic, M. Loncar, T. Yoshie, and O. Painter, "Photonic Crystals and Their Applications to Efficient Light Emitters," *Proc. IEEE LEOS Annual Meeting*, San Diego, CA, Vol. 2, pp. 736-737, Nov. 2001.
 303. M. Loncar, D. Nedeljkovic, T. P. Pearsall, J. Vuckovic, A. Scherer, S. Kuchinsky, and D. C. Allan, "Experimental Characterization of Dispersion Properties of the Leaky Modes in Planar Photonic Crystal Waveguide," *Proc. IEEE LEOS Annual Meeting*, San Diego, CA, Vol. 1, pp. 273-274, Nov. 2001.
 304. M. Loncar, D. Nedeljkovic, T. P. Pearsall, J. Vuckovic, A. Scherer, S. Kuchinsky and D. C. Allan, "Experimental Characterization of Dispersion Properties of the Leaky Modes in Planar Photonic Crystal Waveguide," *Proc. 27th European Conference on Optical Communication*, Amsterdam, Netherlands, Vol. 6, pp. 28-29, Sept. 2001.
 305. Scherer, J. Vuckovic, M. Loncar, T. Yoshie, and O. Painter, "Photonic Crystal Light Sources and Waveguides," *Technical Digest of Conference on Lasers and Electro-Optics/Pacific Rim (CLEO/PR 2001)*, Chiba, Japan, Vol. 1, pp. I20-I21, July 2001.
 306. Scherer, O. Painter, J. Vuckovic, M. Loncar, T. Yoshie, D. Dapkus, I. Kim, and T. Pearsall, "Photonic Crystal Cavities and Waveguides," *Digest of the Device Research Conference (DRC)*, Notre Dame, IN, pp. 115-118, June 2001.
 307. M. Loncar, D. Nedeljkovic, T. Doll, J. Vuckovic, A. Scherer, and T. P. Pearsall, "Waveguiding in Planar Photonic Crystals," *Proc. SPIE Photonics West: Silicon-Based and Hybrid Optoelectronics III*, San Jose, CA, Vol. 4293, pp. 94-99, Jan. 2001.
 308. J. Vuckovic, M. Loncar, and A. Scherer, "Design of Photonic Crystal Optical Microcavities," *Proc. SPIE Photonics West: Physics and Simulation of Optoelectronic Devices VIII*, San Jose, CA, Vol. 4283, pp. 415-419, Jan. 2001.
 309. J. Vuckovic, M. Loncar, H. Mabuchi, and A. Scherer, "Photonic Crystal Microcavities for Strong Coupling Between an Atom and the Cavity Field," *Proc. IEEE LEOS Annual Meeting*, Rio Grande, Puerto Rico, Vol. 2, pp. 840-841, Nov. 2000.
 310. M. Loncar, J. Vuckovic, and A. Scherer, "Modal Analysis of Waveguides Based on Triangular Photonic Crystal Lattice," *Proc. IEEE LEOS Annual Meeting*, Rio Grande, Puerto Rico, Vol. 2, pp. 844-845, Nov. 2000.
 311. J. Vuckovic, M. Loncar, O. Painter, and A. Scherer, "Surface Plasmon Enhanced LED," *Technical Digest of Quantum Electronics and Laser Science Conference (QELS 2000)*, San Francisco, CA, Vol. 40, pp. 41-42, May 2000, and *Technical Digest of Conference on Lasers and Electro-Optics (CLEO 2000)*, San Francisco, CA, Vol. 39, pp 123-124, May 2000.
 312. O. Painter, J. Vuckovic, and A. Scherer, "Two Dimensional Photonic Crystal Nanocavities for Light Localization," *Technical Digest of Quantum Electronics and Laser Science Conference (QELS 2000)*, San Francisco, CA, Vol. 40, pp. 40- 41, May 2000, and *Technical Digest of Conference on Lasers and Electro-Optics (CLEO 2000)*, San Francisco, CA, Vol. 39, pp 122-123, May 2000.
 313. A. Scherer, M. Loncar, O. Painter, A. Husain, J. Vuckovic, and T. Doll, "Photonic Crystal Lasers and Waveguides," *Proc. SPIE Photonics West: Physics and Simulation of Optoelectronic Devices VIII*, San Jose, CA, Vol. 3944, pp. 2-8, Jan. 2000.

314. J. Vuckovic, O. Painter, Y. Xu, A. Yariv, and A. Scherer, "Finite-Difference Time-Domain Calculation of the Spontaneous Emission Coupling Factor in Optical Microcavities," *Proc. SPIE Photonics West: Micro and Nano-Photonic Materials and Devices*, San Jose, CA, Vol. 3937, pp. 2-11, Jan. 2000.
315. A. Scherer, O. Painter, A. Husain, J. Vuckovic, D. Dapkus, and J. O'Brien, "Photonic Crystal Nanocavity Lasers," *Int'l J. High Speed Electronics and Systems*, Vol. 10, No. 1, pp. 387-391 (Proc. Advanced Workshop on Frontiers in Electronics, Grenoble, France, May-June 1999).
316. J. S. Vuckovic and B. S. Vucetic, "Maximum-Likelihood Decoding of Reed Solomon Codes," *Proc. IEEE International Symp. on Information Theory (ISIT)*, Ulm, Germany, pp. 400-400, June-July 1997.

CONTRIBUTED CONFERENCE PAPERS WITHOUT PROCEEDINGS

317. Yiyang Gong, Selçuk Yerci, Rui Li, Luca Dal Negro, and Jelena Vučković, "Enhanced Light Emission from Erbium Doped Silicon Nitride in Plasmonic Metal-Insulator-Metal Structures," *SPRC Annual Symposium*, Sept. 2009 [poster]
318. Jesse Lu and Jelena Vuckovic, "Electromagnetic Inverse Design," *SPRC Annual Symposium*, Sept. 2009 [poster]
319. Gary Shambat, Jesse Lu, Yiyang Gong, Jelena Vuckovic, "Fiber taper coupling to photoluminescent erbium-doped amorphous silicon nitride photonic crystal cavities," *SPRC Annual Symposium*, Sept. 2009 [poster]
320. Kelley Rivoire, Ziliang Lin, Fariba Hatami, W. Ted Masselink, Jelena Vuckovic, "Second Harmonic generation in Gallium Phosphide photonic crystal nanocavities with ultralow continuous wave pump power," *SPRC Annual Symposium*, Sept. 2009 [poster]
321. Arka Majumdar, Andrei Faraon, Hyochul Kim, Pierre Petroff and & Jelena Vuckovic, "Fast Electrical Control via Quantum Confined Stark Effect of a Strongly Coupled Quantum Dot in a Nano-Resonator," *SPRC Annual Symposium*, Sept. 2009
322. Maria Makarova, Yiyang Gong, Selcuk Yerci, Rui Li, Luca Dal Negro, Jelena Vuckovic, "Differential gain at 1.54 μm in Er-doped silicon nitride coupled to photonic crystal cavity," *SPRC Annual Symposium*, Sept. 2009 [poster]
323. Yiyang Gong, Jelena Vuckovic, "Silicon CMOS compatible Photonic Crystal Light emitters", *MARCO IFC Annual Meeting*, Atlanta, GA, Oct. 2008
324. Andrei Faraon, Dirk Englund, Ilya Fushman, Jelena Vuckovic, "Single photon nonlinear optics with quantum dots in photonic crystal resonators," *SPRC Annual Symposium*, Sept. 2008
325. Andrei Faraon, Dirk Englund, Ilya Fushman, Jelena Vuckovic, "Single photon nonlinear optics with quantum dots in photonic crystal resonators," *SPRC Annual Symposium*, Sept. 2008 [poster]

-
326. Kelley Rivoire, Andrei Faraon, and Jelena Vuckovic, "Gallium phosphide photonic crystal cavities in the visible," *SPRC Annual Symposium*, Sept. 2008 [poster]
 327. Maria Makarova, Jelena Vuckovic, "Silicon CMOS compatible Photonic Crystal Light emitters", *MARCO IFC Annual Meeting*, Atlanta, GA, Oct. 2007
 328. Andrei Faraon, Dirk Englund, Ilya Fushman, Jelena Vuckovic, Nick Stoltz, Pierre Petroff, "Local Quantum Dot tuning on photonic crystal chips," *SPRC Annual Symposium*, Sept. 2007 [poster]
 329. Dirk Englund, Ilya Fushman, Hatice Altug, Jelena Vuckovic, "Efficient ultrafast photonic crystal lasers in GaAs and InP," *SPRC Annual Symposium*, Sept. 2007 [poster]
 330. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, and Yoshio Nishi, "Silicon-based Photonic Crystal Nanocavity Light emitters", *MARCO IFC Annual Meeting*, Atlanta, GA, Oct. 2006
 331. Andrei Faraon, Edo Waks, Dirk Englund, and Jelena Vuckovic, "Theoretical and experimental investigation of efficient photonic crystal cavity-waveguide couplers," *SPRC Annual Symposium*, Stanford, CA, Sept. 2006
 332. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, and Yoshio Nishi, "Silicon-based Photonic Crystal Nanocavity Light emitters", *SPRC Annual Symposium*, Stanford, CA, Sept. 2006
 333. Hatice Altug, Dirk Englund, and Jelena Vuckovic, "Ultrafast Photonic Crystal Nanocavity Array Laser," *SPRC Annual Symposium*, Stanford, CA, Sept. 2006
 334. Dirk Englund, Andrei Faraon, Jelena Vuckovic, "Generation and transfer of single photons on a photonic crystal chip," *SPRC Annual Symposium*, Stanford, CA, Sept. 2006
 335. Dirk Englund, Stephan Goetzinger, Andrei Faraon, Jelena Vuckovic, and Yoshihisa Yamamoto, "An Efficient Source of Single Indistinguishable Photons," *Southwest Quantum Information and Technology*, Southwest Quantum Information and Technology, 8th Annual workshop, poster 23, Albuquerque, NM, March 2006.
 336. D. Englund, D. Fattal, E. Waks, Y. Yamamoto, and J. Vuckovic, "Quantum Dot – Photonic Crystal Single Photon Sources," *IEEE/LEOS Semiconductor Laser Workshop*, Baltimore, MD, May 2005.
 337. Edo Waks and Jelena Vuckovic, "Cavity-Waveguide Interaction in Photonic Crystals," *Southwest Quantum Information and Technology (SQUINT) 2005*, Tucson, AZ, Feb. 2005.
 338. Maria Makarova, Jelena Vuckovic, Hiroyuki Sanda, and Yoshio Nishi, "Two-Dimensional Porous Silicon Photonic Crystal Light Emitters," *SPRC Annual Symposium*, arXiv physics/ 0509178, Stanford, CA, Sept. 2005.
 339. H. Altug and J. Vuckovic, "Coupled Photonic Crystal Nanocavity Array Laser," *SPRC Annual Symposium*, Poster Abstract (no pages), Stanford, CA, Sept. 2005.
 340. Ilya Fushman, Dirk Englund, and Jelena Vuckovic, "Coupling of PbS Quantum Dots to Photonic Crystal Cavities at Room Temperature," *SPRC Annual Symposium*, Poster Abstract (no pages), Stanford, CA, Sept. 2005.

341. J. Vuckovic, M. Loncar, H. Mabuchi, and A. Scherer, "Quality Factors of Localized Defect Modes in Planar Photonic Crystal Structures," *PECS 3: Electromagnetic Crystal Structures - Euroconference on Electromagnetic Confinement*, St. Andrews, Scotland, UK, June 2001.
342. C. Santori, D. Fattal, J. Vuckovic, G. S. Solomon, and Y. Yamamoto, "Single-Photon Generation with Optically Excited Quantum Dots," *Conf. on Lasers and Electro-Optics/International Quantum Electronics Conference (CLEO/IQEC 2004)*, San Francisco, CA, May 16-21, 2004.