

Kartik Srinivasan

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137
papers

7,131
citations

47
h-index

81
g-index

173
ext. papers

9,362
ext. citations

9.1
avg, IF

6.19
L-index

#	Paper	IF	Citations
137	Linear and nonlinear optical spectroscopy of a strongly coupled microdisk-quantum dot system. <i>Nature</i> , 2007 , 450, 862-5	50.4	313
136	An optical-frequency synthesizer using integrated photonics. <i>Nature</i> , 2018 , 557, 81-85	50.4	297
135	Spectral line-by-line pulse shaping of on-chip microresonator frequency combs. <i>Nature Photonics</i> , 2011 , 5, 770-776	33.9	292
134	Nonlinear response of silicon photonic crystal microresonators excited via an integrated waveguide and fiber taper. <i>Optics Express</i> , 2005 , 13, 801-20	3.3	292
133	Momentum space design of high-Q photonic crystal optical cavities. <i>Optics Express</i> , 2002 , 10, 670-84	3.3	248
132	Quantum cascade surface-emitting photonic crystal laser. <i>Science</i> , 2003 , 302, 1374-7	33.3	228
131	Coherent coupling between radio frequency, optical, and acoustic waves in piezo-optomechanical circuits. <i>Nature Photonics</i> , 2016 , 10, 346-352	33.9	194
130	A solid-state source of strongly entangled photon pairs with high brightness and indistinguishability. <i>Nature Nanotechnology</i> , 2019 , 14, 586-593	28.7	169
129	Quantum transduction of telecommunications-band single photons from a quantum dot by frequency upconversion. <i>Nature Photonics</i> , 2010 , 4, 786-791	33.9	166
128	Nanoscale optical positioning of single quantum dots for bright and pure single-photon emission. <i>Nature Communications</i> , 2015 , 6, 7833	17.4	164
127	Hybrid integrated quantum photonic circuits. <i>Nature Photonics</i> , 2020 , 14,	33.9	158
126	Architecture for the photonic integration of an optical atomic clock. <i>Optica</i> , 2019 , 6, 680	8.6	153
125	Experimental demonstration of a high quality factor photonic crystal microcavity. <i>Applied Physics Letters</i> , 2003 , 83, 1915-1917	3.4	135
124	Stably accessing octave-spanning microresonator frequency combs in the soliton regime. <i>Optica</i> , 2017 , 4, 193-203	8.6	134
123	Efficient and low-noise single-photon-level frequency conversion interfaces using silicon nanophotonics. <i>Nature Photonics</i> , 2016 , 10, 406-414	33.9	129
122	Cavity Q, mode volume, and lasing threshold in small diameter AlGaAs microdisks with embedded quantum dots. <i>Optics Express</i> , 2006 , 14, 1094-105	3.3	122
121	Heterogeneous integration for on-chip quantum photonic circuits with single quantum dot devices. <i>Nature Communications</i> , 2017 , 8, 889	17.4	117

120	The 2019 surface acoustic waves roadmap. <i>Journal Physics D: Applied Physics</i> , 2019 , 52, 353001	3	112
119	Electromagnetically induced transparency and wideband wavelength conversion in silicon nitride microdisk optomechanical resonators. <i>Physical Review Letters</i> , 2013 , 110, 223603	7.4	107
118	Rayleigh scattering, mode coupling, and optical loss in silicon microdisks. <i>Applied Physics Letters</i> , 2004 , 85, 3693-3695	3.4	104
117	Telecommunications-band heralded single photons from a silicon nanophotonic chip. <i>Applied Physics Letters</i> , 2012 , 100, 261104	3.4	103
116	Optomechanical transduction of an integrated silicon cantilever probe using a microdisk resonator. <i>Nano Letters</i> , 2011 , 11, 791-7	11.5	100
115	Two-photon interference using background-free quantum frequency conversion of single photons emitted by an InAs quantum dot. <i>Physical Review Letters</i> , 2012 , 109, 147405	7.4	96
114	Mode coupling and cavity-quantum-dot interactions in a fiber-coupled microdisk cavity. <i>Physical Review A</i> , 2007 , 75,	2.6	95
113	Integration of fiber-coupled high-Q SiNx microdisks with atom chips. <i>Applied Physics Letters</i> , 2006 , 89, 131108	3.4	94
112	Microwave-to-optics conversion using a mechanical oscillator in its quantum groundstate. <i>Nature Physics</i> , 2020 , 16,	16.2	89
111	Quantum correlations from a room-temperature optomechanical cavity. <i>Science</i> , 2017 , 356, 1265-1268	33.3	81
110	Chip-integrated visible-telecom photon pair sources for quantum communication. <i>Nature Physics</i> , 2019 , 15,	16.2	80
109	Ultra-efficient frequency comb generation in AlGaAs-on-insulator microresonators. <i>Nature Communications</i> , 2020 , 11, 1331	17.4	77
108	Efficient input and output fiber coupling to a photonic crystal waveguide. <i>Optics Letters</i> , 2004 , 29, 697-93		77
107	Optical-fiber-based measurement of an ultrasmall volume high-Q photonic crystal microcavity. <i>Physical Review B</i> , 2004 , 70,	3.3	71
106	Wavelength- and material-dependent absorption in GaAs and AlGaAs microcavities. <i>Applied Physics Letters</i> , 2007 , 90, 051108	3.4	67
105	A circular dielectric grating for vertical extraction of single quantum dot emission. <i>Applied Physics Letters</i> , 2011 , 99, 041102	3.4	66
104	Ultrabroadband Supercontinuum Generation and Frequency-Comb Stabilization Using On-Chip Waveguides with Both Cubic and Quadratic Nonlinearities. <i>Physical Review Applied</i> , 2017 , 8,	4.3	65
103	Efficient fiber-coupled single-photon source based on quantum dots in a photonic-crystal waveguide. <i>Optica</i> , 2017 , 4, 178-184	8.6	64

102	Manipulating the color and shape of single photons. <i>Physics Today</i> , 2012 , 65, 32-37	0.9	64
101	Cascaded emission of single photons from the biexciton in monolayered WSe. <i>Nature Communications</i> , 2016 , 7, 13409	17.4	61
100	Optical loss and lasing characteristics of high-quality-factor AlGaAs microdisk resonators with embedded quantum dots. <i>Applied Physics Letters</i> , 2005 , 86, 151106	3.4	61
99	Photonic chip for laser stabilization to an atomic vapor with 10 ⁻¹¹ instability. <i>Optica</i> , 2018 , 5, 443	8.6	57
98	Self-referenced frequency combs using high-efficiency silicon-nitride waveguides. <i>Optics Letters</i> , 2017 , 42, 2314-2317	3	54
97	Observation of correlation between route to formation, coherence, noise, and communication performance of Kerr combs. <i>Optics Express</i> , 2012 , 20, 29284-95	3.3	52
96	Moving boundary and photoelastic coupling in GaAs optomechanical resonators. <i>Optica</i> , 2014 , 1, 414	8.6	51
95	A microelectromechanically controlled cavity optomechanical sensing system. <i>New Journal of Physics</i> , 2012 , 14, 075015	2.9	51
94	Optical fiber taper coupling and high-resolution wavelength tuning of microdisk resonators at cryogenic temperatures. <i>Applied Physics Letters</i> , 2007 , 90, 031114	3.4	51
93	Quantum electromechanics on silicon nitride nanomembranes. <i>Nature Communications</i> , 2016 , 7, 12396	17.4	50
92	Probing the dispersive and spatial properties of photonic crystal waveguides via highly efficient coupling from fiber tapers. <i>Applied Physics Letters</i> , 2004 , 85, 4-6	3.4	48
91	Deterministic implementation of a bright, on-demand single photon source with near-unity indistinguishability via quantum dot imaging. <i>Optica</i> , 2017 , 4, 802-808	8.6	47
90	Feasibility of detecting single atoms using photonic bandgap cavities. <i>Nanotechnology</i> , 2004 , 15, S556-S561	3.4	47
89	Stellar spectroscopy in the near-infrared with a laser frequency comb. <i>Optica</i> , 2019 , 6, 233	8.6	47
88	Efficient telecom-to-visible spectral translation through ultralow power nonlinear nanophotonics. <i>Nature Photonics</i> , 2019 , 13, 593-601	33.9	46
87	Development of Quantum Interconnects (QICs) for Next-Generation Information Technologies. <i>PRX Quantum</i> , 2021 , 2,	6.1	46
86	Fourier space design of high-Q cavities in standard and compressed hexagonal lattice photonic crystals. <i>Optics Express</i> , 2003 , 11, 579-93	3.3	45
85	Single self-assembled InAs/GaAs quantum dots in photonic nanostructures: The role of nanofabrication. <i>Physical Review Applied</i> , 2018 , 9,	4.3	44

84	Low-noise chip-based frequency conversion by four-wave-mixing Bragg scattering in SiN(x) waveguides. <i>Optics Letters</i> , 2012 , 37, 2997-9	3	42
83	Simultaneous wavelength translation and amplitude modulation of single photons from a quantum dot. <i>Physical Review Letters</i> , 2011 , 107, 083602	7.4	40
82	Efficient quantum dot single photon extraction into an optical fiber using a nanophotonic directional coupler. <i>Applied Physics Letters</i> , 2011 , 99, 121101	3.4	39
81	Fabrication-tolerant high quality factor photonic crystal microcavities. <i>Optics Express</i> , 2004 , 12, 1458-63	3.3	38
80	Wide cantilever stiffness range cavity optomechanical sensors for atomic force microscopy. <i>Optics Express</i> , 2012 , 20, 18268-80	3.3	37
79	Interlocking Kerr-microresonator frequency combs for microwave to optical synthesis. <i>Optics Letters</i> , 2018 , 43, 2933-2936	3	36
78	Multiple time scale blinking in InAs quantum dot single-photon sources. <i>Physical Review B</i> , 2014 , 89,	3.3	36
77	Slot-mode-coupled optomechanical crystals. <i>Optics Express</i> , 2012 , 20, 24394-410	3.3	35
76	Efficient photoinduced second-harmonic generation in silicon nitride photonics. <i>Nature Photonics</i> , 2021 , 15, 131-136	33.9	33
75	Cryogenic photoluminescence imaging system for nanoscale positioning of single quantum emitters. <i>Review of Scientific Instruments</i> , 2017 , 88, 023116	1.7	32
74	Quantum frequency conversion of a quantum dot single-photon source on a nanophotonic chip. <i>Optica</i> , 2019 , 6, 563	8.6	31
73	Microwave-to-optical transduction using a mechanical supermode for coupling piezoelectric and optomechanical resonators. <i>Physical Review Applied</i> , 2020 , 13,	4.3	30
72	Improving the performance of bright quantum dot single photon sources using temporal filtering via amplitude modulation. <i>Scientific Reports</i> , 2013 , 3, 1397	4.9	30
71	Acousto-optic modulation and opto-acoustic gating in piezo-optomechanical circuits. <i>Physical Review Applied</i> , 2017 , 7,	4.3	29
70	Si3N4 optomechanical crystals in the resolved-sideband regime. <i>Applied Physics Letters</i> , 2014 , 104, 041101	3.4	29
69	Spectrally multiplexed and tunable-wavelength photon pairs at 1.55 μm from a silicon coupled-resonator optical waveguide. <i>Optics Letters</i> , 2013 , 38, 2969-71	3	29
68	Polarization properties of dipolelike defect modes in photonic crystal nanocavities. <i>Optics Letters</i> , 2002 , 27, 339-41	3	28
67	Photonic-Chip Supercontinuum with Tailored Spectra for Counting Optical Frequencies. <i>Physical Review Applied</i> , 2017 , 8,	4.3	28

66	Self-organized nonlinear gratings for ultrafast nanophotonics. <i>Nature Photonics</i> , 2019 , 13, 494-499	33.9	27
65	Dissipative Kerr Solitons in a III-V Microresonator. <i>Laser and Photonics Reviews</i> , 2020 , 14, 2000022	8.3	27
64	. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2012 , 18, 1711-1721	3.8	27
63	Efficient spectroscopy of single embedded emitters using optical fiber taper waveguides. <i>Optics Express</i> , 2009 , 17, 10542-63	3.3	27
62	Multifunctional integrated photonics in the mid-infrared with suspended AlGaAs on silicon. <i>Optica</i> , 2019 , 6, 1246	8.6	27
61	Broadband resonator-waveguide coupling for efficient extraction of octave-spanning microcombs. <i>Optics Letters</i> , 2019 , 44, 4737-4740	3	26
60	Quasi-Phase-Matched Supercontinuum Generation in Photonic Waveguides. <i>Physical Review Letters</i> , 2018 , 120, 053903	7.4	25
59	Terahertz-Rate Kerr-Microresonator Optical Clockwork. <i>Physical Review X</i> , 2019 , 9,	9.1	25
58	Probing coherence in microcavity frequency combs via optical pulse shaping. <i>Optics Express</i> , 2012 , 20, 21033-43	3.3	23
57	Tuning Kerr-Soliton Frequency Combs to Atomic Resonances. <i>Physical Review Applied</i> , 2019 , 11,	4.3	22
56	A chip-scale, telecommunications-band frequency conversion interface for quantum emitters. <i>Optics Express</i> , 2013 , 21, 21628-38	3.3	22
55	Roadmap on integrated quantum photonics. <i>JPhys Photonics</i> ,	2.5	22
54	Indistinguishable Photons from Deterministically Integrated Single Quantum Dots in Heterogeneous GaAs/SiN Quantum Photonic Circuits. <i>Nano Letters</i> , 2019 , 19, 7164-7172	11.5	21
53	Single quantum dot spectroscopy using a fiber taper waveguide near-field optic. <i>Applied Physics Letters</i> , 2007 , 91, 091102	3.4	21
52	Experimental demonstration of evanescent coupling from optical fibre tapers to photonic crystal waveguides. <i>Electronics Letters</i> , 2003 , 39, 842	1.1	21
51	Milliwatt-threshold visible-telecom optical parametric oscillation using silicon nanophotonics. <i>Optica</i> , 2019 , 6,	8.6	21
50	Photonic waveguide to free-space Gaussian beam extreme mode converter. <i>Light: Science and Applications</i> , 2018 , 7, 72	16.7	20
49	Slot-Mode Optomechanical Crystals: A Versatile Platform for Multimode Optomechanics. <i>Optica</i> , 2015 , 2, 994-1001	8.6	19

48	Kerr-Microresonator Soliton Frequency Combs at Cryogenic Temperatures. <i>Physical Review Applied</i> , 2019 , 12,	4.3	18
47	Phased-locked two-color single soliton microcombs in dispersion-engineered SiN resonators. <i>Optics Letters</i> , 2018 , 43, 2772-2775	3	18
46	Elimination of Thermomechanical Noise in Piezoelectric Optomechanical Crystals. <i>Physical Review Letters</i> , 2019 , 123, 093603	7.4	17
45	Fiber-coupled semiconductor waveguides as an efficient optical interface to a single quantum dipole. <i>Optics Letters</i> , 2009 , 34, 2542-4	3	17
44	Investigations of a coherently driven semiconductor optical cavity QED system. <i>Physical Review A</i> , 2008 , 78,	2.6	17
43	Si ₃ N ₄ Nanobeam Optomechanical Crystals. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2015 , 21, 61-71	3.8	15
42	Imaging Nanophotonic Modes of Microresonators using a Focused Ion Beam. <i>Nature Photonics</i> , 2016 , 10, 35-39	33.9	14
41	Integrated tuning fork nanocavity optomechanical transducers with high fMQM product and stress-engineered frequency tuning. <i>Applied Physics Letters</i> , 2015 , 107, 131110	3.4	14
40	Dual-comb spectroscopy with tailored spectral broadening in SiN nanophotonics. <i>Optics Express</i> , 2019 , 27, 11869-11876	3.3	14
39	Fully self-referenced frequency comb consuming 5 watts of electrical power. <i>OSA Continuum</i> , 2018 , 1, 274	1.4	14
38	Subnanosecond electro-optic modulation of triggered single photons from a quantum dot. <i>Applied Physics Letters</i> , 2011 , 98, 211103	3.4	13
37	Heterogeneous photodiodes on silicon nitride waveguides. <i>Optics Express</i> , 2020 , 28, 14824-14830	3.3	13
36	Spectral broadening and shaping of nanosecond pulses: toward shaping of single photons from quantum emitters. <i>Optics Letters</i> , 2014 , 39, 5677-80	3	11
35	Wavelength transduction from a 3D microwave cavity to telecom using piezoelectric optomechanical crystals. <i>Applied Physics Letters</i> , 2020 , 116,	3.4	10
34	Lasing mode pattern of a quantum cascade photonic crystal surface-emitting microcavity laser. <i>Applied Physics Letters</i> , 2004 , 84, 4164-4166	3.4	10
33	Spontaneous pulse formation in edgeless photonic crystal resonators. <i>Nature Photonics</i> ,	33.9	10
32	Nonlinear oscillations and bifurcations in silicon photonic microresonators. <i>Physical Review Letters</i> , 2014 , 112, 123901	7.4	9
31	Combined atomic force microscopy and photoluminescence imaging to select single InAs/GaAs quantum dots for quantum photonic devices. <i>Scientific Reports</i> , 2017 , 7, 6205	4.9	9

30	On-chip optical parametric oscillation into the visible: generating red, orange, yellow, and green from a near-infrared pump. <i>Optica</i> , 2020 , 7,	8.6	8
29	pyLLE: A Fast and User Friendly Lugiato-Lefever Equation Solver. <i>Journal of Research of the National Institute of Standards and Technology</i> , 2019 , 124, 1-13	1.3	7
28	A universal frequency engineering tool for microcavity nonlinear optics: multiple selective mode splitting of whispering-gallery resonances. <i>Photonics Research</i> , 2020 , 8,	6	6
27	On-chip polarization rotator for type I second harmonic generation. <i>APL Photonics</i> , 2019 , 4, 126105	5.2	6
26	Tunable Quantum Beat of Single Photons Enabled by Nonlinear Nanophotonics. <i>Physical Review Applied</i> , 2019 , 12,	4.3	6
25	Hybrid InP and SiN integration of an octave-spanning frequency comb. <i>APL Photonics</i> , 2021 , 6, 026102	5.2	6
24	Ultra-broadband Kerr microcomb through soliton spectral translation.. <i>Nature Communications</i> , 2021 , 12, 7275	17.4	4
23	Proposal for noise-free visible-telecom quantum frequency conversion through third-order sum and difference frequency generation. <i>Optics Letters</i> , 2021 , 46, 222-225	3	3
22	Nanoscale Positioning Approaches for Integrating Single Solid-State Quantum Emitters with Photonic Nanostructures. <i>Laser and Photonics Reviews</i> , 2021 , 15, 2100223	8.3	3
21	Tailoring broadband Kerr soliton microcombs via post-fabrication tuning of the geometric dispersion. <i>Applied Physics Letters</i> , 2021 , 119, 121103	3.4	3
20	Conversion Efficiency in Kerr-Microresonator Optical Parametric Oscillators: From Three Modes to Many Modes. <i>Physical Review Applied</i> , 2022 , 17,	4.3	3
19	High-Q slow light and its localization in a photonic crystal microring. <i>Nature Photonics</i> , 2022 , 16, 66-71	33.9	3
18	Towards integrated photonic interposers for processing octave-spanning microresonator frequency combs. <i>Light: Science and Applications</i> , 2021 , 10, 109	16.7	2
17	Considering Photoinduced Second-Harmonic Generation as a dc Kerr Optical Parametric Oscillation or Amplification Process. <i>Physical Review Applied</i> , 2021 , 16,	4.3	2
16	Improved coupled-mode theory for high-index-contrast photonic platforms. <i>Physical Review A</i> , 2020 , 102,	2.6	1
15	Integrated cavity optomechanical sensors for atomic force microscopy 2012 ,		1
14	Cavity optomechanical sensors 2011 ,		1
13	Self-organized nonlinear gratings for ultrafast nanophotonics 2018 ,		1

12	Semiconductor laser integration for octave-span Kerr-soliton frequency combs 2020 ,		1
11	Kerr Microresonator Soliton Frequency Combs at Cryogenic Temperatures. <i>Physical Review Applied</i> , 2019 , 12,	4.3	1
10	Tunable quantum beat of single photons enabled by nonlinear nanophotonics. <i>Physical Review Applied</i> , 2019 , 12,	4.3	1
9	Impact of the precursor gas ratio on dispersion engineering of broadband silicon nitride microresonator frequency combs. <i>Optics Letters</i> , 2021 , 46, 5970-5973	3	1
8	A dual beam photonic wavelength refernce. <i>Measurement: Sensors</i> , 2021 , 18, 100288	0.5	1
7	Broadband, efficient extraction of quantum light by a photonic device comprised of a metallic nano-ring and a gold back reflector. <i>Applied Physics Letters</i> , 2022 , 120, 081103	3.4	1
6	Hybrid-Mode-Family Kerr Optical Parametric Oscillation for Robust Coherent Light Generation on Chip. <i>Laser and Photonics Reviews</i> ,2100582	8.3	1
5	Piezoelectric Optomechanical Approaches for Efficient Quantum Microwave-to-Optical Signal Transduction: The Need for Co-Design. <i>Advanced Quantum Technologies</i> ,2100095	4.3	0
4	Automated on-axis direct laser writing of coupling elements for photonic chips. <i>Optics Express</i> , 2020 , 28, 39340-39353	3.3	0
3	Nonlinear Optics for Photonic Quantum Networks. <i>Springer Series in Optical Sciences</i> , 2015 , 355-421	0.5	
2	Broadband resonator-waveguide coupling for efficient extraction of octave-spanning microcombs: publisher's note. <i>Optics Letters</i> , 2020 , 45, 4939	3	
1	Hybridization of circular and rectangular transverse profiles of nanophotonic modes for nonlinear optics. <i>Optics Letters</i> , 2021 , 46, 2682-2685	3	