

# Kartik Srinivasan

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Conversion Efficiency in Kerr-Microresonator Optical Parametric Oscillators: From Three Modes to Many Modes. <i>Physical Review Applied</i> , <b>2022</b> , 17,	4.3	3
136	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> , <b>2022</b> , 120, 081103	3.4	1
135	High-Q slow light and its localization in a photonic crystal microring. <i>Nature Photonics</i> , <b>2022</b> , 16, 66-71	33.9	3
134	Ultra-broadband Kerr microcomb through soliton spectral translation.. <i>Nature Communications</i> , <b>2021</b> , 12, 7275	17.4	4
133	Impact of the precursor gas ratio on dispersion engineering of broadband silicon nitride microresonator frequency combs. <i>Optics Letters</i> , <b>2021</b> , 46, 5970-5973	3	1
132	Towards integrated photonic interposers for processing octave-spanning microresonator frequency combs. <i>Light: Science and Applications</i> , <b>2021</b> , 10, 109	16.7	2
131	Hybridization of circular and rectangular transverse profiles of nanophotonic modes for nonlinear optics. <i>Optics Letters</i> , <b>2021</b> , 46, 2682-2685	3	
130	Considering Photoinduced Second-Harmonic Generation as a dc Kerr Optical Parametric Oscillation or Amplification Process. <i>Physical Review Applied</i> , <b>2021</b> , 16,	4.3	2
129	Efficient photoinduced second-harmonic generation in silicon nitride photonics. <i>Nature Photonics</i> , <b>2021</b> , 15, 131-136	33.9	33
128	Proposal for noise-free visible-telecom quantum frequency conversion through third-order sum and difference frequency generation. <i>Optics Letters</i> , <b>2021</b> , 46, 222-225	3	3
127	Development of Quantum Interconnects (QICs) for Next-Generation Information Technologies. <i>PRX Quantum</i> , <b>2021</b> , 2,	6.1	46
126	Hybrid InP and SiN integration of an octave-spanning frequency comb. <i>APL Photonics</i> , <b>2021</b> , 6, 026102	5.2	6
125	Nanoscale Positioning Approaches for Integrating Single Solid-State Quantum Emitters with Photonic Nanostructures. <i>Laser and Photonics Reviews</i> , <b>2021</b> , 15, 2100223	8.3	3
124	Tailoring broadband Kerr soliton microcombs via post-fabrication tuning of the geometric dispersion. <i>Applied Physics Letters</i> , <b>2021</b> , 119, 121103	3.4	3
123	A dual beam photonic wavelength refernce. <i>Measurement: Sensors</i> , <b>2021</b> , 18, 100288	0.5	1
122	Improved coupled-mode theory for high-index-contrast photonic platforms. <i>Physical Review A</i> , <b>2020</b> , 102,	2.6	1
121	Dissipative Kerr Solitons in a III-V Microresonator. <i>Laser and Photonics Reviews</i> , <b>2020</b> , 14, 2000022	8.3	27

120	Ultra-efficient frequency comb generation in AlGaAs-on-insulator microresonators. <i>Nature Communications</i> , <b>2020</b> , 11, 1331	17.4	77
119	Microwave-to-optical transduction using a mechanical supermode for coupling piezoelectric and optomechanical resonators. <i>Physical Review Applied</i> , <b>2020</b> , 13,	4.3	30
118	Wavelength transduction from a 3D microwave cavity to telecom using piezoelectric optomechanical crystals. <i>Applied Physics Letters</i> , <b>2020</b> , 116,	3.4	10
117	Hybrid integrated quantum photonic circuits. <i>Nature Photonics</i> , <b>2020</b> , 14,	33.9	158
116	Semiconductor laser integration for octave-span Kerr-soliton frequency combs <b>2020</b> ,		1
115	Heterogeneous photodiodes on silicon nitride waveguides. <i>Optics Express</i> , <b>2020</b> , 28, 14824-14830	3.3	13
114	On-chip optical parametric oscillation into the visible: generating red, orange, yellow, and green from a near-infrared pump. <i>Optica</i> , <b>2020</b> , 7,	8.6	8
113	A universal frequency engineering tool for microcavity nonlinear optics: multiple selective mode splitting of whispering-gallery resonances. <i>Photonics Research</i> , <b>2020</b> , 8,	6	6
112	Broadband resonator-waveguide coupling for efficient extraction of octave-spanning microcombs: publisher's note. <i>Optics Letters</i> , <b>2020</b> , 45, 4939	3	
111	Automated on-axis direct laser writing of coupling elements for photonic chips. <i>Optics Express</i> , <b>2020</b> , 28, 39340-39353	3.3	0
110	Microwave-to-optics conversion using a mechanical oscillator in its quantum groundstate. <i>Nature Physics</i> , <b>2020</b> , 16,	16.2	89
109	Indistinguishable Photons from Deterministically Integrated Single Quantum Dots in Heterogeneous GaAs/SiN Quantum Photonic Circuits. <i>Nano Letters</i> , <b>2019</b> , 19, 7164-7172	11.5	21
108	Elimination of Thermomechanical Noise in Piezoelectric Optomechanical Crystals. <i>Physical Review Letters</i> , <b>2019</b> , 123, 093603	7.4	17
107	Kerr-Microresonator Soliton Frequency Combs at Cryogenic Temperatures. <i>Physical Review Applied</i> , <b>2019</b> , 12,	4.3	18
106	Chip-integrated visible-telecom photon pair sources for quantum communication. <i>Nature Physics</i> , <b>2019</b> , 15,	16.2	80
105	Efficient telecom-to-visible spectral translation through ultralow power nonlinear nanophotonics. <i>Nature Photonics</i> , <b>2019</b> , 13, 593-601	33.9	46
104	Self-organized nonlinear gratings for ultrafast nanophotonics. <i>Nature Photonics</i> , <b>2019</b> , 13, 494-499	33.9	27
103	A solid-state source of strongly entangled photon pairs with high brightness and indistinguishability. <i>Nature Nanotechnology</i> , <b>2019</b> , 14, 586-593	28.7	169

102	Tuning Kerr-Soliton Frequency Combs to Atomic Resonances. <i>Physical Review Applied</i> , <b>2019</b> , 11,	4.3	22
101	Terahertz-Rate Kerr-Microresonator Optical Clockwork. <i>Physical Review X</i> , <b>2019</b> , 9,	9.1	25
100	Quantum frequency conversion of a quantum dot single-photon source on a nanophotonic chip. <i>Optica</i> , <b>2019</b> , 6, 563	8.6	31
99	pyLLE: A Fast and User Friendly Lugiato-Lefever Equation Solver. <i>Journal of Research of the National Institute of Standards and Technology</i> , <b>2019</b> , 124, 1-13	1.3	7
98	The 2019 surface acoustic waves roadmap. <i>Journal Physics D: Applied Physics</i> , <b>2019</b> , 52, 353001	3	112
97	Dual-comb spectroscopy with tailored spectral broadening in SiN nanophotonics. <i>Optics Express</i> , <b>2019</b> , 27, 11869-11876	3.3	14
96	Broadband resonator-waveguide coupling for efficient extraction of octave-spanning microcombs. <i>Optics Letters</i> , <b>2019</b> , 44, 4737-4740	3	26
95	Stellar spectroscopy in the near-infrared with a laser frequency comb. <i>Optica</i> , <b>2019</b> , 6, 233	8.6	47
94	Architecture for the photonic integration of an optical atomic clock. <i>Optica</i> , <b>2019</b> , 6, 680	8.6	153
93	Multifunctional integrated photonics in the mid-infrared with suspended AlGaAs on silicon. <i>Optica</i> , <b>2019</b> , 6, 1246	8.6	27
92	Milliwatt-threshold visible-telecom optical parametric oscillation using silicon nanophotonics. <i>Optica</i> , <b>2019</b> , 6,	8.6	21
91	Kerr Microresonator Soliton Frequency Combs at Cryogenic Temperatures. <i>Physical Review Applied</i> , <b>2019</b> , 12,	4.3	1
90	Tunable quantum beat of single photons enabled by nonlinear nanophotonics. <i>Physical Review Applied</i> , <b>2019</b> , 12,	4.3	1
89	On-chip polarization rotator for type I second harmonic generation. <i>APL Photonics</i> , <b>2019</b> , 4, 126105	5.2	6
88	Tunable Quantum Beat of Single Photons Enabled by Nonlinear Nanophotonics. <i>Physical Review Applied</i> , <b>2019</b> , 12,	4.3	6
87	An optical-frequency synthesizer using integrated photonics. <i>Nature</i> , <b>2018</b> , 557, 81-85	50.4	297
86	Quasi-Phase-Matched Supercontinuum Generation in Photonic Waveguides. <i>Physical Review Letters</i> , <b>2018</b> , 120, 053903	7.4	25
85	Photonic chip for laser stabilization to an atomic vapor with $10^{-11}$ instability. <i>Optica</i> , <b>2018</b> , 5, 443	8.6	57

84	Phased-locked two-color single soliton microcombs in dispersion-engineered SiN resonators. <i>Optics Letters</i> , <b>2018</b> , 43, 2772-2775	3	18
83	Interlocking Kerr-microresonator frequency combs for microwave to optical synthesis. <i>Optics Letters</i> , <b>2018</b> , 43, 2933-2936	3	36
82	Self-organized nonlinear gratings for ultrafast nanophotonics <b>2018</b> ,		1
81	Fully self-referenced frequency comb consuming 5 watts of electrical power. <i>OSA Continuum</i> , <b>2018</b> , 1, 274	1.4	14
80	Photonic waveguide to free-space Gaussian beam extreme mode converter. <i>Light: Science and Applications</i> , <b>2018</b> , 7, 72	16.7	20
79	Single self-assembled InAs/GaAs quantum dots in photonic nanostructures: The role of nanofabrication. <i>Physical Review Applied</i> , <b>2018</b> , 9,	4.3	44
78	Acousto-optic modulation and opto-acoustic gating in piezo-optomechanical circuits. <i>Physical Review Applied</i> , <b>2017</b> , 7,	4.3	29
77	Cryogenic photoluminescence imaging system for nanoscale positioning of single quantum emitters. <i>Review of Scientific Instruments</i> , <b>2017</b> , 88, 023116	1.7	32
76	Quantum correlations from a room-temperature optomechanical cavity. <i>Science</i> , <b>2017</b> , 356, 1265-1268	33.3	81
75	Heterogeneous integration for on-chip quantum photonic circuits with single quantum dot devices. <i>Nature Communications</i> , <b>2017</b> , 8, 889	17.4	117
74	Self-referenced frequency combs using high-efficiency silicon-nitride waveguides. <i>Optics Letters</i> , <b>2017</b> , 42, 2314-2317	3	54
73	Combined atomic force microscopy and photoluminescence imaging to select single InAs/GaAs quantum dots for quantum photonic devices. <i>Scientific Reports</i> , <b>2017</b> , 7, 6205	4.9	9
72	Ultrabroadband Supercontinuum Generation and Frequency-Comb Stabilization Using On-Chip Waveguides with Both Cubic and Quadratic Nonlinearities. <i>Physical Review Applied</i> , <b>2017</b> , 8,	4.3	65
71	Stably accessing octave-spanning microresonator frequency combs in the soliton regime. <i>Optica</i> , <b>2017</b> , 4, 193-203	8.6	134
70	Deterministic implementation of a bright, on-demand single photon source with near-unity indistinguishability via quantum dot imaging. <i>Optica</i> , <b>2017</b> , 4, 802-808	8.6	47
69	Efficient fiber-coupled single-photon source based on quantum dots in a photonic-crystal waveguide. <i>Optica</i> , <b>2017</b> , 4, 178-184	8.6	64
68	Photonic-Chip Supercontinuum with Tailored Spectra for Counting Optical Frequencies. <i>Physical Review Applied</i> , <b>2017</b> , 8,	4.3	28
67	Cascaded emission of single photons from the biexciton in monolayered WSe. <i>Nature Communications</i> , <b>2016</b> , 7, 13409	17.4	61

66	Quantum electromechanics on silicon nitride nanomembranes. <i>Nature Communications</i> , <b>2016</b> , 7, 12396	17.4	50
65	Coherent coupling between radio frequency, optical, and acoustic waves in piezo-optomechanical circuits. <i>Nature Photonics</i> , <b>2016</b> , 10, 346-352	33.9	194
64	Imaging Nanophotonic Modes of Microresonators using a Focused Ion Beam. <i>Nature Photonics</i> , <b>2016</b> , 10, 35-39	33.9	14
63	Efficient and low-noise single-photon-level frequency conversion interfaces using silicon nanophotonics. <i>Nature Photonics</i> , <b>2016</b> , 10, 406-414	33.9	129
62	Nanoscale optical positioning of single quantum dots for bright and pure single-photon emission. <i>Nature Communications</i> , <b>2015</b> , 6, 7833	17.4	164
61	Slot-Mode Optomechanical Crystals: A Versatile Platform for Multimode Optomechanics. <i>Optica</i> , <b>2015</b> , 2, 994-1001	8.6	19
60	Integrated tuning fork nanocavity optomechanical transducers with high fMQM product and stress-engineered frequency tuning. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 131110	3.4	14
59	Nonlinear Optics for Photonic Quantum Networks. <i>Springer Series in Optical Sciences</i> , <b>2015</b> , 355-421	0.5	
58	Si <sub>3</sub> N <sub>4</sub> Nanobeam Optomechanical Crystals. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2015</b> , 21, 61-71	3.8	15
57	Nonlinear oscillations and bifurcations in silicon photonic microresonators. <i>Physical Review Letters</i> , <b>2014</b> , 112, 123901	7.4	9
56	Multiple time scale blinking in InAs quantum dot single-photon sources. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	36
55	Spectral broadening and shaping of nanosecond pulses: toward shaping of single photons from quantum emitters. <i>Optics Letters</i> , <b>2014</b> , 39, 5677-80	3	11
54	Moving boundary and photoelastic coupling in GaAs optomechanical resonators. <i>Optica</i> , <b>2014</b> , 1, 414	8.6	51
53	Si <sub>3</sub> N <sub>4</sub> optomechanical crystals in the resolved-sideband regime. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 041101	10.4	29
52	Electromagnetically induced transparency and wideband wavelength conversion in silicon nitride microdisk optomechanical resonators. <i>Physical Review Letters</i> , <b>2013</b> , 110, 223603	7.4	107
51	Spectrally multiplexed and tunable-wavelength photon pairs at 1.55 $\mu$ m from a silicon coupled-resonator optical waveguide. <i>Optics Letters</i> , <b>2013</b> , 38, 2969-71	3	29
50	A chip-scale, telecommunications-band frequency conversion interface for quantum emitters. <i>Optics Express</i> , <b>2013</b> , 21, 21628-38	3.3	22
49	Improving the performance of bright quantum dot single photon sources using temporal filtering via amplitude modulation. <i>Scientific Reports</i> , <b>2013</b> , 3, 1397	4.9	30

48	Manipulating the color and shape of single photons. <i>Physics Today</i> , <b>2012</b> , 65, 32-37	0.9	64
47	. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2012</b> , 18, 1711-1721	3.8	27
46	Integrated cavity optomechanical sensors for atomic force microscopy <b>2012</b> ,		1
45	Two-photon interference using background-free quantum frequency conversion of single photons emitted by an InAs quantum dot. <i>Physical Review Letters</i> , <b>2012</b> , 109, 147405	7.4	96
44	Telecommunications-band heralded single photons from a silicon nanophotonic chip. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 261104	3.4	103
43	A microelectromechanically controlled cavity optomechanical sensing system. <i>New Journal of Physics</i> , <b>2012</b> , 14, 075015	2.9	51
42	Wide cantilever stiffness range cavity optomechanical sensors for atomic force microscopy. <i>Optics Express</i> , <b>2012</b> , 20, 18268-80	3.3	37
41	Probing coherence in microcavity frequency combs via optical pulse shaping. <i>Optics Express</i> , <b>2012</b> , 20, 21033-43	3.3	23
40	Slot-mode-coupled optomechanical crystals. <i>Optics Express</i> , <b>2012</b> , 20, 24394-410	3.3	35
39	Observation of correlation between route to formation, coherence, noise, and communication performance of Kerr combs. <i>Optics Express</i> , <b>2012</b> , 20, 29284-95	3.3	52
38	Low-noise chip-based frequency conversion by four-wave-mixing Bragg scattering in SiN(x) waveguides. <i>Optics Letters</i> , <b>2012</b> , 37, 2997-9	3	42
37	Spectral line-by-line pulse shaping of on-chip microresonator frequency combs. <i>Nature Photonics</i> , <b>2011</b> , 5, 770-776	33.9	292
36	Simultaneous wavelength translation and amplitude modulation of single photons from a quantum dot. <i>Physical Review Letters</i> , <b>2011</b> , 107, 083602	7.4	40
35	Optomechanical transduction of an integrated silicon cantilever probe using a microdisk resonator. <i>Nano Letters</i> , <b>2011</b> , 11, 791-7	11.5	100
34	Subnanosecond electro-optic modulation of triggered single photons from a quantum dot. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 211103	3.4	13
33	A circular dielectric grating for vertical extraction of single quantum dot emission. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 041102	3.4	66
32	Efficient quantum dot single photon extraction into an optical fiber using a nanophotonic directional coupler. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 121101	3.4	39
31	Cavity optomechanical sensors <b>2011</b> ,		1

30	Quantum transduction of telecommunications-band single photons from a quantum dot by frequency upconversion. <i>Nature Photonics</i> , <b>2010</b> , 4, 786-791	33.9	166
29	Fiber-coupled semiconductor waveguides as an efficient optical interface to a single quantum dipole. <i>Optics Letters</i> , <b>2009</b> , 34, 2542-4	3	17
28	Efficient spectroscopy of single embedded emitters using optical fiber taper waveguides. <i>Optics Express</i> , <b>2009</b> , 17, 10542-63	3.3	27
27	Investigations of a coherently driven semiconductor optical cavity QED system. <i>Physical Review A</i> , <b>2008</b> , 78,	2.6	17
26	Linear and nonlinear optical spectroscopy of a strongly coupled microdisk-quantum dot system. <i>Nature</i> , <b>2007</b> , 450, 862-5	50.4	313
25	Optical fiber taper coupling and high-resolution wavelength tuning of microdisk resonators at cryogenic temperatures. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 031114	3.4	51
24	Wavelength- and material-dependent absorption in GaAs and AlGaAs microcavities. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 051108	3.4	67
23	Mode coupling and cavity-quantum-dot interactions in a fiber-coupled microdisk cavity. <i>Physical Review A</i> , <b>2007</b> , 75,	2.6	95
22	Single quantum dot spectroscopy using a fiber taper waveguide near-field optic. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 091102	3.4	21
21	Integration of fiber-coupled high-Q SiNx microdisks with atom chips. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 131108	3.4	94
20	Cavity Q, mode volume, and lasing threshold in small diameter AlGaAs microdisks with embedded quantum dots. <i>Optics Express</i> , <b>2006</b> , 14, 1094-105	3.3	122
19	Nonlinear response of silicon photonic crystal microresonators excited via an integrated waveguide and fiber taper. <i>Optics Express</i> , <b>2005</b> , 13, 801-20	3.3	292
18	Optical loss and lasing characteristics of high-quality-factor AlGaAs microdisk resonators with embedded quantum dots. <i>Applied Physics Letters</i> , <b>2005</b> , 86, 151106	3.4	61
17	Rayleigh scattering, mode coupling, and optical loss in silicon microdisks. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 3693-3695	3.4	104
16	Lasing mode pattern of a quantum cascade photonic crystal surface-emitting microcavity laser. <i>Applied Physics Letters</i> , <b>2004</b> , 84, 4164-4166	3.4	10
15	Probing the dispersive and spatial properties of photonic crystal waveguides via highly efficient coupling from fiber tapers. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 4-6	3.4	48
14	Feasibility of detecting single atoms using photonic bandgap cavities. <i>Nanotechnology</i> , <b>2004</b> , 15, S556-S561	3.4	47
13	Optical-fiber-based measurement of an ultrasmall volume high-Q photonic crystal microcavity. <i>Physical Review B</i> , <b>2004</b> , 70,	3.3	71



12	Fabrication-tolerant high quality factor photonic crystal microcavities. <i>Optics Express</i> , <b>2004</b> , 12, 1458-63	3.3	38
11	Efficient input and output fiber coupling to a photonic crystal waveguide. <i>Optics Letters</i> , <b>2004</b> , 29, 697-93		77
10	Experimental demonstration of evanescent coupling from optical fibre tapers to photonic crystal waveguides. <i>Electronics Letters</i> , <b>2003</b> , 39, 842	1.1	21
9	Fourier space design of high-Q cavities in standard and compressed hexagonal lattice photonic crystals. <i>Optics Express</i> , <b>2003</b> , 11, 579-93	3.3	45
8	Quantum cascade surface-emitting photonic crystal laser. <i>Science</i> , <b>2003</b> , 302, 1374-7	33.3	228
7	Experimental demonstration of a high quality factor photonic crystal microcavity. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 1915-1917	3.4	135
6	Polarization properties of dipolelike defect modes in photonic crystal nanocavities. <i>Optics Letters</i> , <b>2002</b> , 27, 339-41	3	28
5	Momentum space design of high-Q photonic crystal optical cavities. <i>Optics Express</i> , <b>2002</b> , 10, 670-84	3.3	248
4	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
3	Spontaneous pulse formation in edgeless photonic crystal resonators. <i>Nature Photonics</i> ,	33.9	10
2	Roadmap on integrated quantum photonics. <i>JPhys Photonics</i> ,	2.5	22
1	Hybrid-Mode-Family Kerr Optical Parametric Oscillation for Robust Coherent Light Generation on Chip. <i>Laser and Photonics Reviews</i> , 2100582	8.3	1