

# Sudip Shekhar

## List of Publications by Year in descending order

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68  
papers

1,452  
citations

304743

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345221

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68  
docs citations

68  
times ranked

1285  
citing authors

#	ARTICLE	IF	CITATIONS
1	Prospects and applications of photonic neural networks. <i>Advances in Physics: X</i> , 2022, 7, .	4.1	54
2	A Transformer-Based Technique to Improve Tuning Range and Phase Noise of a 20–28GHz LCVCO and a 51–62GHz Self-Mixing LCVCO. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2022, 69, 2351-2363.	5.4	2
3	Optimum Conditions for Efficient Second-Harmonic Power Generation in mm-Wave Harmonic Oscillators. <i>IEEE Journal of Solid-State Circuits</i> , 2022, 57, 2130-2142.	5.4	7
4	Polymer modulators in silicon photonics: review and projections. <i>Nanophotonics</i> , 2022, 11, 3855-3871.	6.0	14
5	Silicon Photonics: A brief tutorial. <i>IEEE Solid-State Circuits Magazine</i> , 2021, 13, 22-32.	0.4	11
6	Contra-directional pump reject filters integrated with a micro-ring resonator photon-pair source in silicon. <i>Optics Express</i> , 2021, 29, 25173.	3.4	9
7	Stable and Reduced-Linewidth Laser Through Active Cancellation of Reflections Without a Magneto-Optic Isolator. <i>Journal of Lightwave Technology</i> , 2021, 39, 6215-6230.	4.6	3
8	Guest Editorial Introduction to the Special Issue on the 2021 IEEE International Solid-State Circuits Conference (ISSCC). <i>IEEE Journal of Solid-State Circuits</i> , 2021, 56, 3207-3208.	5.4	0
9	On the Design of Low-Power Hybrids for Full Duplex Simultaneous Bidirectional Signaling Links. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2020, 67, 1413-1422.	5.4	9
10	Automated Adaptation and Stabilization of a Tunable WDM Polarization-Independent Receiver on Active Silicon Photonic Platform. <i>IEEE Photonics Journal</i> , 2020, 12, 1-11.	2.0	5
11	Injection Locking in Switching Power Amplifiers. <i>IEEE Access</i> , 2020, 8, 167555-167569.	4.2	1
12	A Compact Dual-Core 26.1-to-29.9GHz Coupled-CMOS LC-VCO with Implicit Common-Mode Resonance and FoM of-191 dBc/Hz at 10MHz. , 2020, , .		9
13	Four-Element Wide Modulated Bandwidth MIMO Receiver With >35-dB Interference Cancellation. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2020, 68, 3930-3941.	4.6	10
14	A Dual-Polarization Silicon-Photonic Coherent Transmitter Supporting 552 Gb/s/wavelength. <i>IEEE Journal of Solid-State Circuits</i> , 2020, 55, 2597-2608.	5.4	29
15	Automated control algorithms for silicon photonic polarization receiver. <i>Optics Express</i> , 2020, 28, 1885.	3.4	25
16	Measuring on-chip waveguide losses using a single, two-point coupled microring resonator. <i>Optics Express</i> , 2020, 28, 10225.	3.4	4
17	A Mach-Zehnder Modulator Quadrature Point Biasing Circuit Immune to Laser Power Fluctuations. , 2020, , .		1
18	A Compact, Voltage-Mode Type-I PLL With Gain-Boosted Saturated PFD and Synchronous Peak Tracking Loop Filter. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2019, 66, 43-53.	5.4	17

#	ARTICLE	IF	CITATIONS
19	A Differential Push-Pull Voltage Mode VCSEL Driver in 65-nm CMOS. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 4147-4157.	5.4	12
20	An Integrated Discrete-Time Delay-Compensating Technique for Large-Array Beamformers. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 3296-3306.	5.4	44
21	A Supply-Noise-Insensitive Digitally-Controlled Oscillator. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 3414-3422.	5.4	10
22	Silicon Photonic Circuit Design Using Rapid Prototyping Foundry Process Design Kits. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-26.	2.9	62
23	A 10-Gb/s $\sim$ 18.8 dBm Sensitivity 5.7 mW Fully-Integrated Optoelectronic Receiver With Avalanche Photodetector in 0.13- $\mu$ m CMOS. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 3162-3173.	5.4	14
24	30.6 A 6V Swing 3.6% THD $\geq$ 40GHz Driver with 4.5Å— Bandwidth Extension for a 272Gb/s Dual-Polarization 16-QAM Silicon Photonic Transmitter. , 2019, , .		14
25	A Low-Power Bidirectional Link With a Direct Data-Sequencing Blind Oversampling CDR. IEEE Journal of Solid-State Circuits, 2019, 54, 1669-1681.	5.4	8
26	Contra-Directional Couplers as Pump Rejection and Recycling Filters for on-Chip Photon-Pair Sources. , 2019, , .		0
27	A Hilbert Transform Equalizer Enabling 80 MHz RF Self-Interference Cancellation for Full-Duplex Receivers. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 1153-1165.	5.4	19
28	Compact wavelength- and bandwidth-tunable microring modulator. Optics Express, 2019, 27, 26661.	3.4	19
29	Photoconductive heaters enable control of large-scale silicon photonic ring resonator circuits. Optica, 2019, 6, 84.	9.3	55
30	Multicolor localization microscopy and point-spread-function engineering by deep learning. Optics Express, 2019, 27, 6147.	3.4	14
31	A 219-to-231 GHz Frequency-Multiplier-Based VCO With $\sim$ 3% Peak DC-to-RF Efficiency in 65-nm CMOS. IEEE Journal of Solid-State Circuits, 2018, 53, 389-403.	5.4	46
32	A Type-I Sub-Sampling PLL With a $\mu$ ext $\{m\}^2$ Footprint and $\sim$ 255-dB FOM. IEEE Journal of Solid-State Circuits, 2018, 53, 3553-3564.	5.4	40
33	Automatic Configuration and Wavelength Locking of Coupled Silicon Ring Resonators. Journal of Lightwave Technology, 2018, 36, 210-218.	4.6	33
34	Feedback control for microring weight banks. Optics Express, 2018, 26, 26422.	3.4	83
35	Compact Silicon Microring Modulator with Tunable Extinction Ratio and Wide FSR. , 2018, , .		9
36	Analog interference cancellation for full-duplex broadband power line communications. , 2017, , .		10

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37	Digitally Controlled Analog Cancellation for Full Duplex Broadband Power Line Communications. IEEE Transactions on Communications, 2017, , 1-1.	7.8	19
38	A low-power temperature sensing system for implantable biomedical applications. , 2017, , .		4
39	Comparison of DAC-less PAM4 modulation in segmented ring resonator and dual cascaded ring resonator. , 2017, , .		2
40	Crosstalk Penalty in Microring-Based Silicon Photonic Interconnect Systems. Journal of Lightwave Technology, 2016, 34, 4043-4052.	4.6	43
41	Silicon-photonics devices: Electronic control and stabilization. , 2016, , .		0
42	Silicon Electronics-Photonics Integrated Circuits for Datacenters. , 2016, , .		3
43	In-band full duplex broadband power line communications. IEEE Transactions on Communications, 2016, 64, 3915-3931.	7.8	47
44	Enhancing transmission efficiency of broadband PLC systems with In-Band Full Duplexing. , 2016, , .		12
45	Silicon-Photonics Microring Links for Datacentersâ€™ Challenges and Opportunities. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 194-203.	2.9	25
46	On the Design of mm-Wave Self-Mixing-VCO Architecture for High Tuning-Range and Low Phase Noise. IEEE Journal of Solid-State Circuits, 2016, 51, 1210-1222.	5.4	55
47	Crosstalk in SOI Microring Resonator-Based Filters. Journal of Lightwave Technology, 2016, 34, 2886-2896.	4.6	40
48	Intraband crosstalk of SOI microring resonator-based optical add-drop multiplexers. , 2015, , .		2
49	Wide FSR silicon-on-insulator microring resonator with bent couplers. , 2015, , .		1
50	A high-performance, yet simple to design, digital-friendly type-I PLL. , 2015, , .		5
51	A dual-tank LC VCO topology approaching towards the maximum thermodynamically-achievable oscillator FoM. , 2015, , .		9
52	A Class-C self-mixing-VCO architecture with high tuning-range and low phase-noise for mm-wave applications. , 2015, , .		9
53	Crosstalk limitations of microring-resonator based WDM demultiplexers on SOI. , 2015, , .		15
54	Wavelength tuning and stabilization of microring-based filters using silicon in-resonator photoconductive heaters. Optics Express, 2015, 23, 25084.	3.4	117

#	ARTICLE	IF	CITATIONS
55	A low-power DC-to-27-GHz transimpedance amplifier in 0.13- $\mu\text{m}$ CMOS using inductive-peaking and current-reuse techniques. , 2014, , .		2
56	A 4- $\times$ 32 Gb/s Bidirectional Link With 3-Tap FFE/6-Tap DFE and Collaborative CDR in 22 nm CMOS. IEEE Journal of Solid-State Circuits, 2014, 49, 3079-3090.	5.4	46
57	26.4 A 25.6Gb/s differential and DDR4/GDDR5 dual-mode transmitter with digital clock calibration in 22nm CMOS. , 2014, , .		21
58	A Scalable 0.128- $\times$ 1 Tb/s, 0.8- $\times$ 2.6 pJ/bit, 64-Lane Parallel I/O in 32-nm CMOS. IEEE Journal of Solid-State Circuits, 2013, 48, 3229-3242.	5.4	79
59	A 2.4-GHz Extended-Range Type-I $\Sigma\Delta$ Fractional- $N$ Synthesizer With 1.8-MHz Loop Bandwidth and $-110$ -dBc/Hz Phase Noise. IEEE Transactions on Circuits and Systems II: Express Briefs, 2011, 58, 472-476.	3.0	22
60	A CMOS 1.6 GHz Dual-Loop PLL With Fourth-Harmonic Mixing. IEEE Transactions on Circuits and Systems I: Regular Papers, 2011, 58, 860-867.	5.4	3
61	A 47,imes,10 Gb/s 1.4 mW/Gb/s Parallel Interface in 45 nm CMOS. IEEE Journal of Solid-State Circuits, 2010, 45, 2828-2837.	5.4	53
62	Strong Injection Locking in Low- $Q$ LC Oscillators: Modeling and Application in a Forwarded-Clock I/O Receiver. IEEE Transactions on Circuits and Systems I: Regular Papers, 2009, 56, 1818-1829.	5.4	43
63	CMOS VCO and LNA Using Tuned-Input Tuned-Output Circuits. IEEE Journal of Solid-State Circuits, 2008, 43, 1177-1186.	5.4	27
64	Wideband CMOS Amplifier Design: Time-Domain Considerations. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 1781-1793.	5.4	35
65	Strong injection locking of low-Q LC oscillators. , 2008, , .		6
66	Low phase noise CMOS voltage-controlled oscillators. , 2007, , .		1
67	A Tuned-Input Tuned-Output VCO in 0.18- $\mu\text{m}$ CMOS. , 2007, , .		4
68	RECENT ADVANCES AND DESIGN TRENDS IN CMOS RADIO FREQUENCY INTEGRATED CIRCUITS. International Journal of High Speed Electronics and Systems, 2005, 15, 377-428.	0.7	0