

# Shuhe Amakawa

## List of Publications by Year in descending order

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68  
papers

823  
citations

933447

10  
h-index

642732

23  
g-index

76  
all docs

76  
docs citations

76  
times ranked

465  
citing authors

#	ARTICLE	IF	CITATIONS
1	An 80-Gb/s 300-GHz-Band Single-Chip CMOS Transceiver. IEEE Journal of Solid-State Circuits, 2019, 54, 3577-3588.	5.4	160
2	A 300 GHz CMOS Transmitter With 32-QAM 17.5 Gb/s/ch Capability Over Six Channels. IEEE Journal of Solid-State Circuits, 2016, 51, 3037-3048.	5.4	100
3	17.9 A 105Gb/s 300GHz CMOS transmitter. , 2017, , .		86
4	20.1 A 300GHz 40nm CMOS transmitter with 32-QAM 17.5Gb/s/ch capability over 6 channels. , 2016, , .		45
5	A 32Gbit/s 16QAM CMOS receiver in 300GHz band. , 2017, , .		45
6	Terahertz CMOS Design for Low-Power and High-Speed Wireless Communication. IEICE Transactions on Electronics, 2015, E98.C, 1091-1104.	0.6	40
7	300-GHz CMOS Transceiver for Terahertz Wireless Communication. , 2018, , .		22
8	Wireless digital data transmission from a 300ÅGHz CMOS transmitter. Electronics Letters, 2016, 52, 1353-1355.	1.0	21
9	Nanoscale Coulomb blockade memory and logic devices. Nanotechnology, 2001, 12, 155-159.	2.6	20
10	Integrated-Circuit Approaches to THz Communications: Challenges, Advances, and Future Prospects. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2017, E100.A, 516-523.	0.3	20
11	Circuit Simulators Aiming at Single-Electron Integration. Japanese Journal of Applied Physics, 1998, 37, 1478-1482.	1.5	18
12	CMOS 300-GHz 64-QAM transmitter. , 2016, , .		18
13	A Simple Model of a Single-Electron Floating Dot Memory for Circuit Simulation. Japanese Journal of Applied Physics, 1999, 38, 429-432.	1.5	15
14	2.4â€“10 GHz Low-Noise Injection-Locked Ring Voltage Controlled Oscillator in 90 nm Complementary Metal Oxide Semiconductor. Japanese Journal of Applied Physics, 2011, 50, 04DE03.	1.5	13
15	Direct White Noise Characterization of Short-Channel MOSFETs. IEEE Transactions on Electron Devices, 2021, 68, 1478-1482.	3.0	11
16	Recent progress and prospects of terahertz CMOS. IEICE Electronics Express, 2015, 12, 20152006-20152006.	0.8	10
17	E-Band 65nm CMOS Low-Noise Amplifier Design Using Gain-Boost Technique. IEICE Transactions on Electronics, 2014, E97.C, 476-485.	0.6	9
18	A 416-mW 32-Gbit/s 300-GHz CMOS receiver. , 2017, , .		9

#	ARTICLE	IF	CITATIONS
19	Inductorless 8.9 mW 25 Gb/s 1:4 DEMUX and 4 mW 13 Gb/s 4:1 MUX in 90 nm CMOS. Journal of Semiconductor Technology and Science, 2010, 10, 176-184.	0.4	8
20	32-Gbit/s CMOS Receivers in 300-GHz Band. IEICE Transactions on Electronics, 2018, E101.C, 464-471.	0.6	8
21	Estimation of Cotunneling in Single-Electron Logic and Its Suppression. Japanese Journal of Applied Physics, 1996, 35, 1146-1150.	1.5	7
22	Characteristics of two Coulomb blockade transistors separated by an island to which an oscillating potential is applied: Theory and experiment. Applied Physics Letters, 2001, 79, 533-535.	3.3	7
23	Scattered Reflections on Scattering Parameters “Demystifying Complex-Referenced S Parameters”.	0.6	7
24	2.37-dBm-output 288–310 GHz frequency multiplier in 40 nm CMOS. , 2017, , .		7
25	Causal Characteristic Impedance Determination Using Calibration Comparison and Propagation Constant. , 2019, , .		7
26	Correlated Electron-Hole Transport in Capacitively-Coupled One-Dimensional Tunnel Junction Arrays. Japanese Journal of Applied Physics, 1997, 36, 4166-4171.	1.5	6
27	Physical design challenges to nano-CMOS circuits. IEICE Electronics Express, 2009, 6, 703-720.	0.8	6
28	Compact 141-GHz Differential Amplifier with 20-dB Peak Gain and 22-GHz 3-dB Bandwidth. IEICE Transactions on Electronics, 2016, E99.C, 1156-1163.	0.6	6
29	A 272-GHz CMOS Analog BPSK/QPSK Demodulator for IEEE 802.15.3d. , 2021, , .		6
30	Modeling of Short-Millimeter-Wave CMOS Transmission Line with Lossy Dielectrics with Specific Absorption Spectrum. IEICE Transactions on Electronics, 2013, E96.C, 1311-1318.	0.6	6
31	A 258-GHz CMOS Transmitter with Phase-Shifting Architecture for Phased-Array Systems. , 2021, , .		6
32	A 76-Gbit/s 265-GHz CMOS Receiver. , 2021, , .		6
33	A Thru-Only De-Embedding Method Foron-Wafer Characterization of Multiport Networks. , 0, , .		5
34	RF Signal Generator Based on Time-to-Analog Converter in 0.18 Åµm Complementary Metal Oxide Semiconductor. Japanese Journal of Applied Physics, 2010, 49, 04DE12.	1.5	5
35	Radio Frequency Micro Electro Mechanical Systems Inductor Configurations for Achieving Large Inductance Variations and HighQ-factors. Japanese Journal of Applied Physics, 2010, 49, 05FG02.	1.5	5
36	A Study of Digitally Controllable Radio Frequency Micro Electro Mechanical Systems Inductor. Japanese Journal of Applied Physics, 2011, 50, 05EE01.	1.5	4

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37	Variable-Temperature Noise Characterization of N-MOSFETs Using an <i>In-Situ</i> Broadband Amplifier. IEEE Journal of the Electron Devices Society, 2021, 9, 1227-1236.	2.1	4
38	300-GHz-Band OFDM Video Transmission with CMOS TX/RX Modules and 40dBi Cassegrain Antenna toward 6G. IEICE Transactions on Electronics, 2021, E104.C, 576-586.	0.6	4
39	RF CMOS Integrated Circuit: History, Current Status and Future Prospects. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2011, E94.A, 556-567.	0.3	4
40	Analysis of multiphase clocked electron pumps consisting of single-electron transistors. Journal of Applied Physics, 2001, 89, 5001-5008.	2.5	3
41	Nanosilicon for single-electron devices. Current Applied Physics, 2004, 4, 98-101.	2.4	3
42	Highly Energy-Efficient On-Chip Pulsed-Current-Mode Transmission Line Interconnect. , 2010, , .		3
43	An Inductorless Cascaded Phase-Locked Loop with Pulse Injection Locking Technique in 90-nm CMOS. International Journal of Microwave Science and Technology, 2013, 2013, 1-11.	0.6	3
44	Wideband Power-Line Decoupling Technique for Millimeter-Wave CMOS Integrated Circuits. , 2019, , .		3
45	A 32-Gb/s CMOS Receiver With Analog Carrier Recovery and Synchronous QPSK Demodulation. IEEE Microwave and Wireless Components Letters, 2021, 31, 768-770.	3.2	3
46	A Study of Digitally Controllable Radio Frequency Micro Electro Mechanical Systems Inductor. Japanese Journal of Applied Physics, 2011, 50, 05EE01.	1.5	3
47	Adaptable wire-length distribution with tunable occupation probability. , 2007, , .		2
48	A 30-to-70-GHz CMOS Amplifier for 300-GHz Heterodyne Receivers. , 2021, , .		2
49	Charging and Retention Times in Silicon-Floating-Dot-Single-Electron Memory. Japanese Journal of Applied Physics, 2001, 40, 2041-2045.	1.5	1
50	Cross-coupling in Coulomb blockade circuits: Bidirectional electron pump. Journal of Applied Physics, 2003, 94, 3194-3200.	2.5	1
51	Wide-band, high linear low noise amplifier design in 0.18um CMOS technology. IEICE Electronics Express, 2010, 7, 759-764.	0.8	1
52	Modeling of Reduced Surface Field Laterally Diffused Metal Oxide Semiconductor for Accurate Prediction of Junction Condition on Device Characteristics. Japanese Journal of Applied Physics, 2011, 50, 04DP03.	1.5	1
53	Universal Relationship between Substrate Current and History Effect in Silicon-on-Insulator Metal-Oxide-Semiconductor Field-Effect Transistors. Japanese Journal of Applied Physics, 2011, 50, 04DC12.	1.5	1
54	DC and RF characterization of RF MOSFET embedding structure. , 2017, , .		1

#	ARTICLE	IF	CITATIONS
55	A 40 dB peak gain, wideband, low noise intermediate frequency (IF) amplifier. , 2017, , .		1
56	Design of CMOS On-Chip Millimeter-Wave Transformer Coupled Balun and Power Divider-Combiner with Optimal Amplitude and Phase Imbalance. , 2019, , .		1
57	Theoretical Study of Optimal Feedback LNA Design. , 2020, , .		1
58	Effect of an Electromagnetic Wave Absorber on 300-GHz Short-Range Wireless Communications. , 2020, , .		1
59	1.2â€“17.6 GHz Ring-Oscillator-Based Phase-Locked Loop with Injection Locking in 65 nm Complementary Metal Oxide Semiconductor. Japanese Journal of Applied Physics, 2012, 51, 02BE03.	1.5	1
60	Scaling of the single-electron tunnelling current through ultrasmall tunnel junctions. Journal of Physics Condensed Matter, 2000, 12, 7223-7228.	1.8	0
61	Inter-Chip Wiring Technology for 3-D LSI. Electrochemistry, 2009, 77, 812-817.	1.4	0
62	A Universal Equivalent Circuit Model for Ceramic Capacitors. IEICE Transactions on Electronics, 2010, E93-C, 347-354.	0.6	0
63	Design of On-Chip High Speed Interconnect on Complementary Metal Oxide Semiconductor 180 nm Technology. Japanese Journal of Applied Physics, 2010, 49, 04DE14.	1.5	0
64	Interconnect Design Challenges in Nano CMOS Circuit. Key Engineering Materials, 0, 470, 224-230.	0.4	0
65	1.2â€“17.6 GHz Ring-Oscillator-Based Phase-Locked Loop with Injection Locking in 65 nm Complementary Metal Oxide Semiconductor. Japanese Journal of Applied Physics, 2012, 51, 02BE03.	1.5	0
66	RF signal generator using time domain harmonic suppression technique in 90nm CMOS. IEICE Electronics Express, 2012, 9, 270-275.	0.8	0
67	Millimeter-Wave Circuit Parameters optimization for Designing CMOS On-Chip Transformer Coupled Amplifiers. , 2019, , .		0
68	Improvement Method of Power-Added Efficiency of Multi-Stage CMOS Amplifiers in Millimeter-Wave Band. , 2020, , .		0