

# S J B Yoo

## List of Publications by Year in descending order

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93  
papers

2,828  
citations

236612

25  
h-index

276539

41  
g-index

93  
all docs

93  
docs citations

93  
times ranked

1987  
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of extremely large quadratic susceptibility at $9.6 \times 10.8^{1/4} \mu\text{m}$ in electric-field-biased AlGaAs quantum wells. <i>Physical Review Letters</i> , 1989, 62, 1041-1044.	2.9	358
2	Spectral and Spatial 2D Fragmentation-Aware Routing and Spectrum Assignment Algorithms in Elastic Optical Networks [Invited]. <i>Journal of Optical Communications and Networking</i> , 2013, 5, A100.	3.3	258
3	Demonstration of free space coherent optical communication using integrated silicon photonic orbital angular momentum devices. <i>Optics Express</i> , 2012, 20, 9396.	1.7	215
4	Wavelength conversion by difference frequency generation in AlGaAs waveguides with periodic domain inversion achieved by wafer bonding. <i>Applied Physics Letters</i> , 1996, 68, 2609-2611.	1.5	191
5	Real-time full-field arbitrary optical waveform measurement. <i>Nature Photonics</i> , 2010, 4, 248-254.	15.6	161
6	Free-space coherent optical communication with orbital angular, momentum multiplexing/demultiplexing using a hybrid 3D photonic integrated circuit. <i>Optics Express</i> , 2014, 22, 145.	1.7	145
7	LIONS: An AWGR-Based Low-Latency Optical Switch for High-Performance Computing and Data Centers. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2013, 19, 3600409-3600409.	1.9	130
8	Demonstration of Cooperative Resource Allocation in an OpenFlow-Controlled Multidomain and Multinational SD-EON Testbed. <i>Journal of Lightwave Technology</i> , 2015, 33, 1508-1514.	2.7	107
9	Athermalizing and Trimming of Slotted Silicon Microring Resonators With UV-Sensitive PMMA Upper-Cladding. <i>IEEE Photonics Technology Letters</i> , 2009, 21, 1175-1177.	1.3	90
10	Second-order susceptibility in asymmetric quantum wells and its control by proton bombardment. <i>Applied Physics Letters</i> , 1991, 58, 1724-1726.	1.5	87
11	Dynamic on-demand defragmentation in flexible bandwidth elastic optical networks. <i>Optics Express</i> , 2012, 20, 1798.	1.7	86
12	<title>All-optical packet-switched networks: a study of contention-resolution schemes in an irregular mesh network with variable-sized packets</title>. , 2000, , .		69
13	3D elastic optical networking in the temporal, spectral, and spatial domains. , 2015, 53, 79-87.		61
14	OpenFlow-Assisted Online Defragmentation in Single-/Multi-Domain Software-Defined Elastic Optical Networks [Invited]. <i>Journal of Optical Communications and Networking</i> , 2015, 7, A7.	3.3	56
15	Dynamic optical arbitrary waveform generation and measurement. <i>Optics Express</i> , 2010, 18, 18655.	1.7	53
16	Demonstration of high-fidelity dynamic optical arbitrary waveform generation. <i>Optics Express</i> , 2010, 18, 22988.	1.7	48
17	Compact 10 GHz loopback arrayed-waveguide grating for high-fidelity optical arbitrary waveform generation. <i>Optics Letters</i> , 2008, 33, 1714.	1.7	45
18	Jitter and Amplitude Noise Accumulations in Cascaded All-Optical Regenerators. <i>Journal of Lightwave Technology</i> , 2008, 26, 1640-1652.	2.7	43

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19	Monolithic InP 100-Channel 10-GHz Device for Optical Arbitrary Waveform Generation. IEEE Photonics Journal, 2011, 3, 975-985.	1.0	40
20	Uniform emission, constant wavevector silicon grating surface emitter for beam steering with ultra-sharp instantaneous field-of-view. Optics Express, 2017, 25, 19655.	1.7	37
21	The First Testbed Demonstration of a Flexible Bandwidth Network with a Real-Time Adaptive Control Plane. , 2011, , .		32
22	Fully Reconfigurable Silicon Photonic Lattice Filters With Four Cascaded Unit Cells. IEEE Photonics Technology Letters, 2011, 23, 42-44.	1.3	31
23	Demonstration of a Flexible Bandwidth Optical Transmitter/Receiver System Scalable to Terahertz Bandwidths. IEEE Photonics Journal, 2011, 3, 1013-1022.	1.0	31
24	Experimental demonstration of flexible bandwidth networking with real-time impairment awareness. Optics Express, 2011, 19, B736.	1.7	30
25	Continuously Tunable, Wavelength-Selective Buffering in Optical Packet Switching Networks. IEEE Photonics Technology Letters, 2008, 20, 1030-1032.	1.3	28
26	Design and evaluation of an arbitration-free passive optical crossbar for on-chip interconnection networks. Applied Physics A: Materials Science and Processing, 2009, 95, 1111-1118.	1.1	28
27	Towards athermal optically-interconnected computing system using slotted silicon microring resonators and RF-photon comb generation. Applied Physics A: Materials Science and Processing, 2009, 95, 1101-1109.	1.1	27
28	Near quantum-limited, single-shot coherent arbitrary optical waveform measurements. Optics Express, 2009, 17, 12332.	1.7	25
29	Scalable and Distributed Contention Resolution in AWGR-Based Data Center Switches Using RSOA-Based Optical Mutual Exclusion. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 3600111-3600111.	1.9	22
30	Rapid updating of optical arbitrary waveforms via time-domain multiplexing. Optics Letters, 2008, 33, 1068.	1.7	20
31	Multi-domain cognitive optical software defined networks with market-driven brokers. , 2014, , .		20
32	Optical Arbitrary Waveform Generation-Based Packet Generation and All-Optical Separation for Optical-Label Switching. IEEE Photonics Technology Letters, 2010, 22, 715-717.	1.3	18
33	Adaptive Spectrum Control and Management in Elastic Optical Networks. IEEE Journal on Selected Areas in Communications, 2013, 31, 39-48.	9.7	18
34	An All-Optical Token Technique Enabling a Fully-Distributed Control Plane in AWGR-Based Optical Interconnects. Journal of Lightwave Technology, 2013, 31, 414-422.	2.7	14
35	Polarization Diversified Integrated Circuits for Orbital Angular Momentum Multiplexing. IEEE Photonics Technology Letters, 2015, 27, 1056-1059.	1.3	14
36	Elastic Optical Networking by Dynamic Optical Arbitrary Waveform Generation and Measurement. Journal of Optical Communications and Networking, 2016, 8, A171.	3.3	14

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37	3.5-THz Wide, 175 Mode Optical Comb Source. , 2007, , .		13
38	A novel SDN enabled hybrid optical packet/circuit switched data centre network: The LIGHTNESS approach. , 2014, , .		13
39	Experimental Demonstration of Adaptive Combinational QoT Degradation Restoration in Elastic Optical Networks. Journal of Lightwave Technology, 2013, 31, 664-671.	2.7	12
40	All-Optical Label Swapping, Clock Recovery, and 3R Regeneration in 101-Hop Cascaded Optical-Label Switching Router Networks. IEEE Photonics Technology Letters, 2006, 18, 2629-2631.	1.3	11
41	Security Enhancement of SPECTS O-CDMA Through Concealment Against Upstream DPSK Eavesdropping. Journal of Lightwave Technology, 2007, 25, 2799-2806.	2.7	11
42	Elastic optical networking and low-latency high-radix optical switches for future cloud computing. , 2013, , .		11
43	Experimental demonstration of dynamic flexible bandwidth optical data center network with all-to-all interconnectivity. , 2014, , .		11
44	Frequency-to-Time-Assisted Interferometry for Full-Field Optical Waveform Measurements With Picosecond Resolution and Microsecond Record Lengths. IEEE Photonics Journal, 2012, 4, 748-758.	1.0	8
45	Hybrid 3D Photonic Integrated Circuit for Optical Phased Array Beam Steering. , 2015, , .		8
46	Demonstration of Orbital Angular Momentum State Conversion using Two Hybrid 3D Photonic Integrated Circuits. , 2014, , .		8
47	Performance Comparison of Gated and Nongated All-Optical Thresholding Detection Schemes Using Mach-Zehnder Interferometers in SPECTS O-CDMA. IEEE Photonics Technology Letters, 2007, 19, 1054-1056.	1.3	6
48	400-Gb/s Modulation-Format-Independent Single-Channel Transmission With Chromatic Dispersion Precompensation Based on OAWG. IEEE Photonics Technology Letters, 2010, 22, 905-907.	1.3	6
49	Rapid High-Precision In Situ Wavelength Calibration for Tunable Lasers Using an Athermal AWG and a PD Array. IEEE Photonics Technology Letters, 2012, 24, 70-72.	1.3	6
50	Scalable AWGR-based All-to-All Optical Interconnects with 2.5D/3D Integrated Optical Interposers. , 2018, , .		6
51	Integrated Optical Orbital Angular Momentum Multiplexing Device using 3-D Waveguides and a Silica PLC. , 2013, , .		5
52	Active arrayed-waveguide grating with amplitude and phase control for arbitrary filter generation and high-order dispersion compensation. , 2008, , .		4
53	InP-Based Arrayed-Waveguide Grating with a Channel Spacing of 10 GHz. , 2008, , .		4
54	Error-free 1,001-hop Cascaded Operation of an Optical-label Switching Router with Optical 3R Regeneration. , 2006, , .		3

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55	Determination of 20 GHz InP AWG Phase Errors by Measurement of AWG Pulse Train. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	3
56	Silicon microring resonator-based reconfigurable optical lattice filter for on-chip optical signal processing. , 2009, , .		3
57	Outage constrained joint precoding for D2D underlay cellular networks. , 2013, , .		3
58	XFROG characterization of a 10 GHz colliding-pulse mode-locked laser. , 2006, , .		2
59	Interactive Informatics on Internet Infrastructure. , 2007, , .		2
60	Dynamic phase-error compensation for high-resolution InP arrayed-waveguide grating using electro-optic effect. , 2008, , .		2
61	Demonstration of scalable, flat, and high-throughput data center architecture based on arrayed waveguide grating routers. , 2014, , .		2
62	Multi-broker based market-driven service provisioning in multi-domain SD-EONs in noncooperative game scenarios. , 2015, , .		2
63	In situ compensation of 2D SLM phase nonuniformity within pulse shapers. , 2006, , .		1
64	Experimental Investigation on Using Phase Mask in Spectral-Phase-Encoded O-CDMA for Security Enhancement. , 2006, , .		1
65	Security-Enhanced SPECTS O-CDMA Demonstration Across 150 km Field Fiber. , 2007, , .		1
66	Network Performance Evaluation of End-to-End Application over SPECTS O-CDMA Testbed. , 2007, , .		1
67	360 Gb/s data modulation with dispersion precompensation using optical arbitrary waveform generation. , 2008, , .		1
68	Simultaneous multi-format RZ-OOK and RZ-DPSK optical packet switching based on tunable four-wave mixing. , 2009, , .		1
69	Fully reconfigurable silicon CMOS photonic lattice filters. , 2010, , .		1
70	Flexible-bandwidth and format-agile networking based on optical arbitrary waveform generation and wavelength selective switches. , 2010, , .		1
71	Terabit flexible-bandwidth networking with optical arbitrary waveform generation and measurements. , 2011, , .		1
72	Full-field technique for measuring the spectral evolution of reconfigurable photonic filters. Optics Letters, 2012, 37, 341.	1.7	1

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73	Polarization diversified integrated circuits for orbital angular momentum multiplexing. , 2015, , .		1
74	Demonstration of Field Trial Experiments to Investigate the Cascadability of a 10 Gb/s Optical 3R Regenerator with All-optical Clock Recovery. , 2006, , .		0
75	Optical Clock Recovery Operation of a Colliding-Pulse Mode-Locked Laser Diode with Integrated Active-Passive Waveguides. , 2006, , .		0
76	Sinusoidal phase modulation as a gate for FROG. , 2007, , .		0
77	Resiliency of OCDM-PON against near-far problem. , 2007, , .		0
78	InP photonic integrated circuits for optical communciations. , 2008, , .		0
79	Monolithically Integratable Colliding Pulse Modelocked Laser Source for O-CDMA Photonic Chip Development. , 2008, , .		0
80	Performance investigation of an IQ wavelength converter. , 2009, , .		0
81	Experimental demonstration of 8&amp;#x00D7;8 10 Gb/s low-latency and contention-less wavelength routing optical switch for data center networks. , 2010, , .		0
82	Multi-band coherent optical OFDM receiver enabled by optical frequency combs. , 2010, , .		0
83	Demonstration of high-fidelity dynamic optical arbitrary waveform generation. , 2010, , .		0
84	Coherent reception of 80 GBd QPSK using integrated spectral slice optical arbitrary waveform measurement. , 2012, , .		0
85	Dynamic Optical Arbitrary Waveform Generation and Measurement for Elastic Optical Networks. , 2012, , .		0
86	Towards heterogeneous optoelectronics integration by low temperature 3D wafer bonding. , 2012, , .		0
87	Dynamic optical arbitrary waveform generation and measurement to increase the flexibility, fidelity and bandwidth of optical networks. , 2012, , .		0
88	Scalable and modular high-performance optical interconnects with distributed control plane. , 2013, , .		0
89	Heterogeneous integrated systems for future computing and networking. , 2013, , .		0
90	Design optimization of energy-efficient hydrophobic wafer-bonded III-V/Si semiconductor optical amplifiers. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
91	Experimental Demonstration of Elastic RF-Optical Networking (ERON) for 5G mm-wave Systems. , 2017, , .		0
92	Ultra-broadband, high-gain, polarization-independent optical parametric amplification in type-II quasi-phase-matched AlGaAs waveguides. , 2008, , .		0
93	Prospects and Challenges of High-Density Heterogeneous Photonic Integration. , 2013, , .		0