Keren Bergman

List of Publications by Year
in descending order

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211 papers	5,823 citations	136950 32 h-index	95266 68 g-index
212 all docs	212 docs citations	212 times ranked	3283 citing authors

#	Article	IF	Citations
1	Photonic Networks-on-Chip for Future Generations of Chip Multiprocessors. IEEE Transactions on Computers, 2008, 57, 1246-1260.	3.4	812
2	Optical 4x4 hitless slicon router for optical networks-on-chip (NoC). Optics Express, 2008, 16, 15915.	3.4	355
3	Recent advances in optical technologies for data centers: a review. Optica, 2018, 5, 1354.	9.3	348
4	On the Design of a Photonic Network-on-Chip. , 2007, , .		214
5	Resolving the thermal challenges for silicon microring resonator devices. Nanophotonics, 2014, 3, 269-281.	6.0	179
6	Photonic switching in high performance datacenters [Invited]. Optics Express, 2018, 26, 16022.	3.4	170
7	All-Optical Comb Switch for Multiwavelength Message Routing in Silicon Photonic Networks. IEEE Photonics Technology Letters, 2008, 20, 767-769.	2.5	159
8	Ultrahigh-Bandwidth Silicon Photonic Nanowire Waveguides for On-Chip Networks. IEEE Photonics Technology Letters, 2008, 20, 398-400.	2.5	128
9	Wavelength Locking and Thermally Stabilizing Microring Resonators Using Dithering Signals. Journal of Lightwave Technology, 2014, 32, 505-512.	4.6	121
10	Scaling silicon photonic switch fabrics for data center interconnection networks. Optics Express, 2015, 23, 1159.	3.4	115
11	High-Performance Modulators and Switches for Silicon Photonic Networks-on-Chip. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 6-22.	2.9	109
12	Silicon Photonics for Exascale Systems. Journal of Lightwave Technology, 2015, 33, 547-562.	4.6	105
13	Physical-Layer Modeling and System-Level Design of Chip-Scale Photonic Interconnection Networks. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2011, 30, 1507-1520.	2.7	103
14	The Data Vortex Optical Packet Switched Interconnection Network. Journal of Lightwave Technology, 2008, 26, 1777-1789.	4.6	102
15	PhoenixSim: A simulator for physical-layer analysis of chip-scale photonic interconnection networks. , 2010, , .		93
16	Broadband Operation of Nanophotonic Router for Silicon Photonic Networks-on-Chip. IEEE Photonics Technology Letters, 2010, 22, 926-928.	2.5	88
17	Photonic NoC for DMA Communications in Chip Multiprocessors. , 2007, , .		71
18	Design and characterization of a 30-GHz bandwidth low-power silicon traveling-wave modulator. Optics Communications, 2014, 321, 124-133.	2.1	69

#	Article	IF	Citations
19	Design Space Exploration of Microring Resonators in Silicon Photonic Interconnects: Impact of the Ring Curvature. Journal of Lightwave Technology, 2018, 36, 2767-2782.	4.6	69
20	Ultralow-crosstalk, strictly non-blocking microring-based optical switch. Photonics Research, 2019, 7, 155.	7.0	69
21	High-Speed 2$, imes ,$2 Switch for Multiwavelength Silicon-Photonic Networksâ€“On-Chip. Journal of Lightwave Technology, 2009, 27, 2900-2907.	4.6	67
22	High-Speed Silicon Modulator With Slow-Wave Electrodes and Fully Independent Differential Drive. Journal of Lightwave Technology, 2014, 32, 2240-2247.	4.6	63
23	Broadband Silicon Photonic Electrooptic Switch for Photonic Interconnection Networks. IEEE Photonics Technology Letters, 2011, 23, 504-506.	2.5	61
24	Comprehensive Design Space Exploration of Silicon Photonic Interconnects. Journal of Lightwave Technology, 2016, 34, 2975-2987.	4.6	60
25	Design Exploration of Optical Interconnection Networks for Chip Multiprocessors. , 2008, , .		59
26	Optical interconnects for extreme scale computing systems. Parallel Computing, 2017, 64, 65-80.	2.1	58
27	Universal Design of Waveguide Bends in Silicon-on-Insulator Photonics Platform. Journal of Lightwave Technology, 2019, 37, 3044-3054.	4.6	57
28	Silicon Photonics for Extreme Scale Systems. Journal of Lightwave Technology, 2019, 37, 245-259.	4.6	56
29	Thermal Rectification of Integrated Microheaters for Microring Resonators in Silicon Photonics Platform. Journal of Lightwave Technology, 2018, 36, 773-788.	4.6	54
30	Silicon Photonics Codesign for Deep Learning. Proceedings of the IEEE, 2020, 108, 1261-1282.	21.3	52
31	Scalable Microring-Based Silicon Clos Switch Fabric With Switch-and-Select Stages. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-11.	2.9	49
32	Crosstalk Penalty in Microring-Based Silicon Photonic Interconnect Systems. Journal of Lightwave Technology, 2016, 34, 4043-4052.	4.6	43
33	The Data Vortex, an All Optical Path Multicomputer Interconnection Network. IEEE Transactions on Parallel and Distributed Systems, 2007, 18, 409-420.	5.6	42
34	Silicon Photonic 2.5D Multi-Chip Module Transceiver for High-Performance Data Centers. Journal of Lightwave Technology, 2020, 38, 3346-3357.	4.6	38
35	An Experimental Validation of a Wavelength-Striped, Packet Switched, Optical Interconnection Network. Journal of Lightwave Technology, 2009, 27, 841-850.	4.6	37
36	Modular architecture for fully non-blocking silicon photonic switch fabric. Microsystems and Nanoengineering, 2017, 3, 16071.	7.0	35

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37	A Compact Low-Power 320-Gb/s WDM Transmitter Based on Silicon Microrings. IEEE Photonics Journal, 2014, 6, 1-8.	2.0	32
38	Circuit-Switched Memory Access in Photonic Interconnection Networks for High-Performance Embedded Computing. , 2010, , .		31
39	Single Microring-Based <inline-formula> <tex-math notation="LaTeX">$2imes 2$ </tex-math></inline-formula> Silicon Photonic Crossbar Switches. IEEE Photonics Technology Letters, 2015, 27, 1981-1984.	2.5	31
40	Insertion loss analysis in a photonic interconnection network for on-chip and off-chip communications. , 2008, , .		30
41	40-Gb/s DPSK Data Transmission Through a Silicon Microring Switch. IEEE Photonics Technology Letters, 2012, 24, 473-475.	2.5	30
42	Characterization of a 4$,imes,$4 Gb/s Parallel Electronic Bus to WDM Optical Link Silicon Photonic Translator. IEEE Photonics Technology Letters, 2007, 19, 456-458.	2.5	29
43	Energy-performance optimized design of silicon photonic interconnection networks for high-performance computing. , 2017, , .		29
44	A Silicon Photonic Switching Platform for Flexible Converged Centralized-Radio Access Networking. Journal of Lightwave Technology, 2020, 38, 5386-5392.	4.6	29
45	Intermodulation Crosstalk Characteristics of WDM Silicon Microring Modulators. IEEE Photonics Technology Letters, 2014, 26, 1478-1481.	2.5	28
46	A Modular, Scalable, Extensible, and Transparent Optical Packet Buffer. Journal of Lightwave Technology, 2007, 25, 978-985.	4.6	26
47	Software-defined control-plane for wavelength selective unicast and multicast of optical data in a silicon photonic platform. Optics Express, 2017, 25, 232.	3.4	26
48	SiP-ML. , 2021, , .		26
49	PINE: Photonic Integrated Networked Energy efficient datacenters (ENLITENED Program) [Invited]. Journal of Optical Communications and Networking, 2020, 12, 443.	4.8	26
50	Nanophotonic Optical Interconnection Network Architecture for On-Chip and Off-Chip Communications. , 2008, , .		25
51	An Energy-Efficient Optically Connected Memory Module for Hybrid Packet- and Circuit-Switched Optical Networks. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 3700407-3700407.	2.9	25
52	Multi-Stage 8 Ã— 8 Silicon Photonic Switch Based on Dual-Microring Switching Elements. Journal of Lightwave Technology, 2020, 38, 194-201.	4.6	25
53	Continuous Wavelength Conversion of 40-Gb/s Data Over 100 nm Using a Dispersion-Engineered Silicon Waveguide. IEEE Photonics Technology Letters, 2011, 23, 73-75.	2.5	24
54	Software-defined optical network for metro-scale geographically distributed data centers. Optics Express, 2016, 24, 12310.	3.4	24

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55	Bandwidth steering in HPC using silicon nanophotonics. , 2019, , .		24
56	Ultra-compact 320 Gb/s and 160 Gb/s WDM transmitters based on silicon microrings. , 2014, , .		23
57	Polarization-Dependent Gain in SOA-Based Optical Multistage Interconnection Networks. Journal of Lightwave Technology, 2006, 24, 3959-3967.	4.6	21
58	Quality of Transmission Prediction with Machine Learning for Dynamic Operation of Optical WDM Networks. , 2017, , .		21
59	tSDX: Enabling Impairment-Aware All-Optical Inter-Domain Exchange. Journal of Lightwave Technology, 2018, 36, 142-154.	4.6	21
60	High-Efficiency Biwavelength Polarization Splitter-Rotator on the SOI Platform. IEEE Photonics Technology Letters, 2015, 27, 518-521.	2.5	20
61	Demonstration of All-Optical Multi-Wavelength Message Routing for Silicon Photonic Networks. , 2008, , .		19
62	First Demonstration of a 10-Gb/s RZ End-to-End Four-Wave-Mixing Based Link at 1884 nm Using Silicon Nanowaveguides. IEEE Photonics Technology Letters, 2012, 24, 276-278.	2.5	19
63	Silicon Photonic Switch Topologies and Routing Strategies for Disaggregated Data Centers. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-10.	2.9	19
64	Ultra-Broadband Interleaver for Extreme Wavelength Scaling in Silicon Photonic Links. IEEE Photonics Technology Letters, 2021, 33, 55-58.	2.5	19
65	4$,imes,$44 Gb/s Packet-Level Switching in a Second-Order Microring Switch. IEEE Photonics Technology Letters, 2012, 24, 1555-1557.	2.5	18
66	Energy Efficiency Analysis of Comb Source Carrier-Injection Ring-Based Silicon Photonic Link. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-13.	2.9	18
67	Programmable Dynamically-Controlled Silicon Photonic Switch Fabric. Journal of Lightwave Technology, 2016, 34, 2952-2958.	4.6	17
68	Performance Requirements for Terabit-Class Silicon Photonic Links Based on Cascaded Microring Resonators. Journal of Lightwave Technology, 2020, 38, 3469-3477.	4.6	17
69	VANDAL: A tool for the design specification of nanophotonic networks. , 2011, , .		16
70	Experimental characterization of the optical-power upper bound in a silicon microring modulator. , 2012, , .		16
71	Colorless Optical Network Unit Based on Silicon Photonic Components for WDM PON. IEEE Photonics Technology Letters, 2012, 24, 1372-1374.	2.5	16
72	Characterization of Nonlinear Optical Crosstalk in Silicon Nanowaveguides. IEEE Photonics Technology Letters, 2012, 24, 185-187.	2.5	15

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73	Fast Wavelength Locking of a Microring Resonator. IEEE Photonics Technology Letters, 2014, 26, 2365-2368.	2.5	15
74	Error-Free Operation of an All-Silicon Waveguide Photodiode at 1.9 $mu{m m}$. IEEE Photonics Technology Letters, 2013, 25, 2031-2034.	2.5	14
75	Optimization of microring-based filters for dense WDM silicon photonic interconnects. , 2015, , .		14
76	WDM Source Based on High-Power, Efficient 1280-nm DFB Lasers for Terabit Interconnect Technologies. IEEE Photonics Technology Letters, 2018, 30, 1929-1932.	2.5	14
77	Pushâ€"pull microring-assisted space-and-wavelength selective switch. Optics Letters, 2020, 45, 2696.	3.3	14
78	A 10-Gb/s Silicon Microring Resonator-Based BPSK Link. IEEE Photonics Technology Letters, 2014, 26, 1805-1808.	2.5	13
79	Energy-bandwidth design exploration of silicon photonic interconnects in 65nm CMOS. , 2016, , .		13
80	Flexible Architecture and Autonomous Control Plane for Metro-Scale Geographically Distributed Data Centers. Journal of Lightwave Technology, 2017, 35, 1188-1196.	4.6	13
81	Fixed-Point Analysis and FPGA Implementation of Deep Neural Network Based Equalizers for High-Speed PON. Journal of Lightwave Technology, 2022, 40, 1972-1980.	4.6	13
82	Optically interconnected high performance data centers. , 2010, , .		12
83	Real-Time Power Control for Dynamic Optical Networksâ€"Algorithms and Experimentation. IEEE Journal on Selected Areas in Communications, 2014, 32, 1615-1628.	14.0	12
84	Tapless and topology agnostic calibration solution for silicon photonic switches. Optics Express, 2018, 26, 32662.	3.4	12
85	A Case For Intra-rack Resource Disaggregation in HPC. Transactions on Architecture and Code Optimization, 2022, 19, 1-26.	2.0	12
86	DPSK Transmission Through Silicon Microring Switch for Photonic Interconnection Networks. IEEE Photonics Technology Letters, 2011, 23, 1103-1105.	2.5	11
87	Photonic Switched Optically Connected Memory: An Approach to Address Memory Challenges in Deep Learning. Journal of Lightwave Technology, 2020, 38, 2815-2825.	4.6	11
88	FPGA Implementation of Deep Neural Network Based Equalizers for High-Speed PON. , 2020, , .		11
89	Silicon Microring Resonator-Based Broadband Comb Switch for Wavelength-Parallel Message Routing. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	10
90	Broadband CMOS-Compatible Silicon Photonic Electro-Optic Switch for Photonic Networks-on-Chip. , 2010, , .		10

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91	Optical interconnection networks for high-performance systems. , 2020, , 785-825.		10
92	Design Space Exploration of the Dragonfly Topology. Lecture Notes in Computer Science, 2017, , 57-74.	1.3	10
93	Silicon photonic switch-based optical equalization for mitigating pulsewidth distortion. Optics Express, 2019, 27, 19426.	3.4	10
94	Photonic networks-on-chip: Opportunities and challenges. , 2008, , .		9
95	Optically interconnected data center architecture for bandwidth intensive energy efficient networking. , 2012, , .		9
96	PhoenixSim. , 2016, , .		9
97	Design Methodology for Optimizing Optical Interconnection Networks in High Performance Systems. Lecture Notes in Computer Science, 2015, , 454-471.	1.3	9
98	Performance trade-offs in reconfigurable networks for HPC. Journal of Optical Communications and Networking, 2022, 14, 454.	4.8	9
99	Optimization of a Switching Node for Optical Multistage Interconnection Networks. IEEE Photonics Technology Letters, 2007, 19, 1658-1660.	2.5	8
100	Thermally active 4×4 non-blocking switch for networks-on-chip. , 2008, , .		8
101	Highly-scalable, low-crosstalk architecture for ring-based optical space switch fabrics. , 2017, , .		8
102	Smart Routing Tables for Integrated Photonic Switch Fabrics. , 2017, , .		8
103	Optically Connected Memory for Disaggregated Data Centers. , 2020, , .		8
104	Photonic Networks for Intra-Chip, Inter-Chip, and Box Interconnects in High-Performance Computing. , 2006, , .		7
105	Intermodulation crosstalk from silicon microring modulators in wavelength-parallel photonic networks-on-chip. , 2010, , .		7
106	High-Speed BPSK Modulation in Silicon. IEEE Photonics Technology Letters, 2015, 27, 1329-1332.	2.5	7
107	Automated Thermal Stabilization of Cascaded Silicon Photonic Ring Resonators for Reconfigurable WDM Applications. , 2017, , .		7
108	Photonic NoC for DMA Communications in Chip Multiprocessors. , 2007, , .		7

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109	Experimental Demonstration of a Complete SPINet Optical Packet Switched Interconnection Network. , 2007, , .		6
110	High-Speed 2×2 switch for multi-wavelength message routing in on-chip silicon photonic networks. , 2008, , .		6
111	Demonstration of Asynchronous Operation of a Multiwavelength Optical Packet-Switched Fabric. IEEE Photonics Technology Letters, 2010, 22, 1223-1225.	2.5	6
112	Microring resonance stabilization using thermal dithering. , 2013, , .		6
113	Automated Calibration and Characterization for Scalable Integrated Optical Switch Fabrics without Built-in Power Monitors. , 2017, , .		6
114	Energy Efficiency Analysis of Frequency Comb Sources for Silicon Photonic Interconnects. , 2019, , .		6
115	Dual-Microring Resonator Based 8Ã—8 Silicon Photonic Switch. , 2019, , .		6
116	3D-Integrated Multichip Module Transceiver for Terabit-Scale DWDM Interconnects. , 2021, , .		6
117	Kerr Comb-Driven Silicon Photonic Transmitter. , 2021, , .		6
118	Demonstrated 4Ã—4 Gbps Silicon Photonic Integrated Parallel Electronic to WDM Interface. , 2007, , .		5
119	Demonstration of 8×40-Gb/s wavelength-striped packet switching in a multi-terabit capacity optical network test-bed. , 2010, , .		5
120	Silicon photonic interconnection networks for data centers. , 2013, , .		5
121	Impact of photonic switch radix on realizing optical interconnection networks for exascale systems. , 2014, , .		5
122	A software-defined optical gateway for converged inter/intra data center networks. , 2015, , .		5
123	End-to-End Modeling and Optimization of Power Consumption in HPC Interconnects. , 2016, , .		5
124	Si/SiN Microring-Based Optical Router in Switch-and-Select Topology. , 2018, , .		5
125	Low-Power Optical Interconnects based on Resonant Silicon Photonic Devices. , 2018, , .		5
126	FLEETâ€"Fast Lanes for Expedited Execution at 10 Terabits: Program Overview. IEEE Internet Computing, 2021, 25, 79-87.	3.3	5

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127	Optically connected memory for disaggregated data centers. Journal of Parallel and Distributed Computing, 2022, 163, 300-312.	4.1	5
128	A Novel Optical Buffer Architecture for Optical Packet Switching Routers. , 2006, , .		4
129	High data rate signal integrity in micron-scale silicon ring resonators. , 2006, , .		4
130	Silicon Photonic On-Chip Optical Interconnection Networks. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	4
131	Cross-layer signal monitoring in an optical packet-switching test-bed via real-time burst sampling. , 2010, , .		4
132	On-chip optical interconnection network performance evaluation using power penalty metrics from silicon photonic modulators. , 2010, , .		4
133	Demonstration of Failure Reconfiguration via Cross-Layer Enabled Optical Switching Fabrics. IEEE Photonics Technology Letters, 2011, 23, 1679-1681.	2.5	4
134	Ultra-low latency optical switching for short message sizes in cluster scale systems. , 2013, , .		4
135	Fast wavelength locking of a microring resonator. , 2014, , .		4
136	Behavioral Model of Silicon Photonics Microring with Unequal Ring and Bus Widths. , 2019, , .		4
137	Error-free data transmission through fast broadband all-optical modulation in grapheneâ€“silicon optoelectronics. Applied Physics Letters, 2020, 116, 221106.	3.3	4
138	Experimental Demonstration of PAM-4 Transmission through Microring Silicon Photonic Clos Switch Fabric. , 2020, , .		4
139	Distributed deep learning training using silicon photonic switched architectures. APL Photonics, 2022, 7, .	5.7	4
140	Fabrication-Robust Silicon Photonics Platform in Standard 220 nm Silicon Processes. , 2021, , .		4
141	An All-Optical PCI-Express Network Interface for Optical Packet Switched Networks. , 2007, , .		3
142	Cross-Layer Communication With an Optical Packet Switched Network via a Message Injection Control Interface. IEEE Photonics Technology Letters, 2008, 20, 967-969.	2.5	3
143	250 Gb/s multi-wavelength operation of microring resonator-based broadband comb switch for silicon photonic networks-on-chip. , 2008, , .		3
144	Cross-layer communications for high-bandwidth optical networks. , 2010, , .		3

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145	Demonstration of 1.28-Tb/s transmission in next-generation nanowires for photonic networks-on-chip. , 2010, , .		3
146	Experimental demonstration of 10 gigabit ethernet-based optical interconnection network interface for large-scale computing systems. , 2011, , .		3
147	A Data Rate- and Modulation Format-Independent Packet-Switched Optical Network Test-Bed. IEEE Photonics Technology Letters, 2012, 24, 377-379.	2.5	3
148	Experimental demonstration of wavelength-reconfigurable optical packet- and circuit-switched platform for data center networks. , 2012, , .		3
149	Real-time power control for dynamic optical networks - Algorithms and experimentation. , 2013, , .		3
150	First Demonstration of a Cross-Layer Enabled Network Node. Journal of Lightwave Technology, 2013, 31, 1512-1525.	4.6	3
151	Scalability of silicon photonic microring based switch. , 2014, , .		3
152	Experimental demonstration of one-to-many virtual machine migration by reliable optical multicast. , 2015, , .		3
153	Ar+-Implanted Si-Waveguide Photodiodes for Mid-Infrared Detection. Photonics, 2016, 3, 46.	2.0	3
154	Loss and crosstalk of scalable MZI-based switch topologies in silicon photonic platform. , 2016, , .		3
155	256/64-QAM Multicarrier Analog Radio-over-Fiber Modulation using a Linear Differential Drive Silicon Mach-Zehnder Modulator. , 2018, , .		3
156	Impact of Backscattering on Microring-Based Silicon Photonic Links. , 2018, , .		3
157	Ultra-low power consumption silicon photonic link design analysis in the AIM PDK. , 2019, , .		3
158	Ultra-Broadband Silicon Photonic Interleaver for Massive Channel Count Frequency Combs. , 2020, , .		3
159	Empirical Method for Determining SOA Gain Based on ASE Characterization. IEEE Photonics Technology Letters, 2006, 18, 2224-2226.	2.5	2
160	Signal Degradation through a 12 Ã— 12 Optical Packet Switching Network. , 2006, , .		2
161	Bistable Switching Node for Optical Packet Switched Networks. , 2006, , .		2
162	An Enhanced Buffered Switching Node for a Data Vortex Interconnection Network. , 2006, , .		2

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163	Experimental Demonstration of Network Congestion Control with a Programmable Optical Packet Injection Buffer. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	2
164	Tools and methodologies for designing energy-efficient photonic networks-on-chip for highperformance chip multiprocessors. , 2010, , .		2
165	10-Gb/s Access Network Architecture Based on Micro-Ring Modulators With Colorless ONU and Mitigated Rayleigh Backscattering. IEEE Photonics Technology Letters, 2011, 23, 914-916.	2.5	2
166	P-sync: A Photonically Enabled Architecture for Efficient Non-local Data Access. , 2013, , .		2
167	Javanco: A software framework for optical network modelling and optimization. , 2013, , .		2
168	FPGA controlled microring based tunable add-drop filter. , 2013, , .		2
169	Introduction to the Issue on Optical Interconnects for Data Centers. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 0200302-0200302.	2.9	2
170	Experimental demonstration of converged inter/intra data center network architecture. , 2015, , .		2
171	240 Gb/s mode and wavelength division multiplexed data transmission in Si photonics. , 2016, , .		2
172	Wavelength Locking of Multicast Signals Using Photo-Conductive Effect in Silicon Photonic Platform. , 2018, , .		2
173	Evolving Requirements and Trends of HPC. Springer Handbooks, 2020, , 725-755.	0.6	2
174	Novel Scalable and Reconfigurable Optical Fronthaul Network for Converged Radio Frequency and Data Services Using Silicon Photonic Switching. , 2021, , .		2
175	An FDL-Based Photonic Switching Node for a Data Vortex Optical Packet Switched Interconnection Network. , 2006, , .		1
176	Signal Integrity of RZ Data in Micron-scale Silicon Ring Resonators. , 2006, , .		1
177	Ultrahigh-Bandwidth WDM Signal Integrity in Silicon-on-Insulator Nanowire Waveguides. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1
178	Transparent, Low Power Optical WDM Interface for Off-Chip Interconnects. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1
179	Priority encoding scheme for contention resolution in optical packet-switched networks. , 2008, , .		1
180	Interface Optical Buffer and Packet-Switched Network Cross-Layer Signaling Demonstration. , 2008, , .		1

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181	Nanophotonic interconnection networks in multicore embedded computing. , 2009, , .		1
182	First experimental demonstration of optically-connected SDRAM across a transparent optical network test-bed. , 2010, , .		1
183	Implementing an Optical QoS Encoding Scheme in an Optical Packet Switching Fabric Test-Bed. IEEE Photonics Technology Letters, 2010, 22, 1518-1520.	2.5	1
184	Chip scale photonic interconnects for energy-performance optimized computing. , 2010, , .		1
185	Intelligent highly-functional cross-layer optimized interfaces for future access/aggregation networks. , 2011, , .		1
186	Cross-layer enabled translucent optical network with real-time impairment awareness. , 2012, , .		1
187	Modeling and simulation environment for photonic interconnection networks in high performance computing. , 2013, , .		1
188	Reducing energy per delivered bit in silicon photonic interconnection networks. , 2014, , .		1
189	Software-Defined Networking Control Plane for Seamless Integration of Silicon Photonics in Datacom Networks. , 2017, , .		1
190	Microring-Based Si/SiN Dual-Layer Switch Fabric. , 2018, , .		1
191	Advanced Control for Crosstalk Minimization in MZI-Based Silicon Photonic Switches. , 2018, , .		1
192	Time-Efficient Photonic Variability Simulator for Uncertainty Quantification of Photonic Integrated Circuit. , 2019, , .		1
193	Demonstration of Novel Silicon Optical Switching on Digital Radio over Fibre Link for Next-Generation Fronthaul. , 2021, , .		1
194	Polarization-Diversity Microring-Based Optical Switch Fabric in a Switch-and-Select Architecture. , 2020, , .		1
195	Silicon Photonic Switch-Enabled Server Regrouping Using Bandwidth Steering for Distributed Deep Learning Training. , 2021, , .		1
196	Low Latency Optical Packet Switched Interconnection Networks. , 2006, , .		0
197	Optical Packet Routing in Distributed Grid Computing Architectures. , 2006, , .		0
198	Nanophotonic interconnection networks for multicore embedded computing systems. , 2008, , .		0

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199	Broadband wavelength conversion of 10-Gb/s DPSK signals in silicon waveguides. , 2010, , .		0
200	QoS-aware cross-layer multicasting for optical packet-switched networks: Simulation exploration and test-bed demonstration. , 2010, , .		0
201	40-Gb/s silicon modulators for mid-reach applications at 1550 nm. , 2014, , .		0
202	Optimized silicon photonic components for high-performance interconnect systems. , 2015, , .		0
203	Silicon photonic interconnection networks in high performance datacom systems. , 2015, , .		0
204	High-speed BPSK modulation using a silicon modulator. , 2015, , .		0
205	Thermal stabilization of a microring resonator using bandgap temperature sensor. , 2015, , .		0
206	40-Gb/s BPSK modulation using a silicon modulator. , 2015, , .		0
207	Joint Allocation of IT and Connectivity Resources for Survivable Services in Geographically Distributed Metro Data Centers. , 2017, , .		0
208	Programmable optical power distribution in silicon photonic platform. , 2017, , .		0
209	Topology Agnostic Solution for Tapless Calibration of Silicon Photonic Mach-Zehnder Based Switches. , 2018, , .		0
210	Highly-Efficient Optical Equalization Using a Silicon Photonic Switch for Pulsewidth Distortion Mitigation. , 2019, , .		0
211	Silicon Photonic Multi-Chip Module Interconnects for Disaggregated Data Centers. , 2020, , .		0