Keren Bergman

List of Publications by Year
in descending order

211 papers	5,823 citations	156536 32 h-index	107981 68 g-index
212 all docs	212 docs citations	212 times ranked	3870 citing authors

#	Article	IF	Citations
1	Fixed-Point Analysis and FPGA Implementation of Deep Neural Network Based Equalizers for High-Speed PON. Journal of Lightwave Technology, 2022, 40, 1972-1980.	2.7	13
2	Optically connected memory for disaggregated data centers. Journal of Parallel and Distributed Computing, 2022, 163, 300-312.	2.7	5
3	A Case For Intra-rack Resource Disaggregation in HPC. Transactions on Architecture and Code Optimization, 2022, 19, 1-26.	1.6	12
4	Distributed deep learning training using silicon photonic switched architectures. APL Photonics, 2022, 7, .	3.0	4
5	Performance trade-offs in reconfigurable networks for HPC. Journal of Optical Communications and Networking, 2022, 14, 454.	3.3	9
6	Ultra-Broadband Interleaver for Extreme Wavelength Scaling in Silicon Photonic Links. IEEE Photonics Technology Letters, 2021, 33, 55-58.	1.3	19
7	Demonstration of Novel Silicon Optical Switching on Digital Radio over Fibre Link for Next-Generation Fronthaul. , 2021, , .		1
8	FLEETâ€"Fast Lanes for Expedited Execution at 10 Terabits: Program Overview. IEEE Internet Computing, 2021, 25, 79-87.	3.2	5
9	SiP-ML. , 2021, , .		26
10	3D-Integrated Multichip Module Transceiver for Terabit-Scale DWDM Interconnects. , 2021, , .		6
11	Kerr Comb-Driven Silicon Photonic Transmitter. , 2021, , .		6
12	Novel Scalable and Reconfigurable Optical Fronthaul Network for Converged Radio Frequency and Data Services Using Silicon Photonic Switching. , 2021, , .		2
13	Silicon Photonic Switch-Enabled Server Regrouping Using Bandwidth Steering for Distributed Deep Learning Training. , 2021, , .		1
14	Fabrication-Robust Silicon Photonics Platform in Standard 220 nm Silicon Processes. , 2021, , .		4
15	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.	1.9	18
16	Optical interconnection networks for high-performance systems. , 2020, , 785-825.		10
17	Multi-Stage 8 Ã— 8 Silicon Photonic Switch Based on Dual-Microring Switching Elements. Journal of Lightwave Technology, 2020, 38, 194-201.	2.7	25
18	Performance Requirements for Terabit-Class Silicon Photonic Links Based on Cascaded Microring Resonators. Journal of Lightwave Technology, 2020, 38, 3469-3477.	2.7	17

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19	Optically Connected Memory for Disaggregated Data Centers. , 2020, , .		8
20	A Silicon Photonic Switching Platform for Flexible Converged Centralized-Radio Access Networking. Journal of Lightwave Technology, 2020, 38, 5386-5392.	2.7	29
21	Error-free data transmission through fast broadband all-optical modulation in graphene–silicon optoelectronics. Applied Physics Letters, 2020, 116, 221106.	1.5	4
22	Silicon Photonic Multi-Chip Module Interconnects for Disaggregated Data Centers. , 2020, , .		0
23	Photonic Switched Optically Connected Memory: An Approach to Address Memory Challenges in Deep Learning. Journal of Lightwave Technology, 2020, 38, 2815-2825.	2.7	11
24	Silicon Photonics Codesign for Deep Learning. Proceedings of the IEEE, 2020, 108, 1261-1282.	16.4	52
25	Silicon Photonic 2.5D Multi-Chip Module Transceiver for High-Performance Data Centers. Journal of Lightwave Technology, 2020, 38, 3346-3357.	2.7	38
26	Silicon Photonic Switch Topologies and Routing Strategies for Disaggregated Data Centers. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-10.	1.9	19
27	PINE: Photonic Integrated Networked Energy efficient datacenters (ENLITENED Program) [Invited]. Journal of Optical Communications and Networking, 2020, 12, 443.	3.3	26
28	Polarization-Diversity Microring-Based Optical Switch Fabric in a Switch-and-Select Architecture. , 2020, , .		1
29	Experimental Demonstration of PAM-4 Transmission through Microring Silicon Photonic Clos Switch Fabric. , 2020, , .		4
30	Push–pull microring-assisted space-and-wavelength selective switch. Optics Letters, 2020, 45, 2696.	1.7	14
31	FPGA Implementation of Deep Neural Network Based Equalizers for High-Speed PON. , 2020, , .		11
32	Evolving Requirements and Trends of HPC. Springer Handbooks, 2020, , 725-755.	0.3	2
33	Ultra-Broadband Silicon Photonic Interleaver for Massive Channel Count Frequency Combs. , 2020, , .		3
34	Time-Efficient Photonic Variability Simulator for Uncertainty Quantification of Photonic Integrated Circuit. , 2019, , .		1
35	Behavioral Model of Silicon Photonics Microring with Unequal Ring and Bus Widths. , 2019, , .		4
36	Scalable Microring-Based Silicon Clos Switch Fabric With Switch-and-Select Stages. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-11.	1.9	49

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37	Energy Efficiency Analysis of Frequency Comb Sources for Silicon Photonic Interconnects. , 2019, , .		6
38	Highly-Efficient Optical Equalization Using a Silicon Photonic Switch for Pulsewidth Distortion Mitigation. , 2019, , .		0
39	Universal Design of Waveguide Bends in Silicon-on-Insulator Photonics Platform. Journal of Lightwave Technology, 2019, 37, 3044-3054.	2.7	57
40	Silicon Photonics for Extreme Scale Systems. Journal of Lightwave Technology, 2019, 37, 245-259.	2.7	56
41	Bandwidth steering in HPC using silicon nanophotonics. , 2019, , .		24
42	Ultralow-crosstalk, strictly non-blocking microring-based optical switch. Photonics Research, 2019, 7, 155.	3.4	69
43	Dual-Microring Resonator Based 8Ã—8 Silicon Photonic Switch. , 2019, , .		6
44	Ultra-low power consumption silicon photonic link design analysis in the AIM PDK. , 2019, , .		3
45	Silicon photonic switch-based optical equalization for mitigating pulsewidth distortion. Optics Express, 2019, 27, 19426.	1.7	10
46	Thermal Rectification of Integrated Microheaters for Microring Resonators in Silicon Photonics Platform. Journal of Lightwave Technology, 2018, 36, 773-788.	2.7	54
47	Design Space Exploration of Microring Resonators in Silicon Photonic Interconnects: Impact of the Ring Curvature. Journal of Lightwave Technology, 2018, 36, 2767-2782.	2.7	69
48	256/64-QAM Multicarrier Analog Radio-over-Fiber Modulation using a Linear Differential Drive Silicon Mach-Zehnder Modulator. , 2018, , .		3
49	Recent advances in optical technologies for data centers: a review. Optica, 2018, 5, 1354.	4.8	348
50	Topology Agnostic Solution for Tapless Calibration of Silicon Photonic Mach-Zehnder Based Switches. , 2018, , .		0
51	Si/SiN Microring-Based Optical Router in Switch-and-Select Topology. , 2018, , .		5
52	WDM Source Based on High-Power, Efficient 1280-nm DFB Lasers for Terabit Interconnect Technologies. IEEE Photonics Technology Letters, 2018, 30, 1929-1932.	1.3	14
53	Photonic switching in high performance datacenters [Invited]. Optics Express, 2018, 26, 16022.	1.7	170
54	Microring-Based Si/SiN Dual-Layer Switch Fabric. , 2018, , .		1

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55	Low-Power Optical Interconnects based on Resonant Silicon Photonic Devices. , 2018, , .		5
56	tSDX: Enabling Impairment-Aware All-Optical Inter-Domain Exchange. Journal of Lightwave Technology, 2018, 36, 142-154.	2.7	21
57	Impact of Backscattering on Microring-Based Silicon Photonic Links. , 2018, , .		3
58	Advanced Control for Crosstalk Minimization in MZI-Based Silicon Photonic Switches. , 2018, , .		1
59	Wavelength Locking of Multicast Signals Using Photo-Conductive Effect in Silicon Photonic Platform. , 2018, , .		2
60	Tapless and topology agnostic calibration solution for silicon photonic switches. Optics Express, 2018, 26, 32662.	1.7	12
61	Optical interconnects for extreme scale computing systems. Parallel Computing, 2017, 64, 65-80.	1.3	58
62	Modular architecture for fully non-blocking silicon photonic switch fabric. Microsystems and Nanoengineering, 2017, 3, 16071.	3.4	35
63	Flexible Architecture and Autonomous Control Plane for Metro-Scale Geographically Distributed Data Centers. Journal of Lightwave Technology, 2017, 35, 1188-1196.	2.7	13
64	Energy-performance optimized design of silicon photonic interconnection networks for high-performance computing. , 2017, , .		29
65	Highly-scalable, low-crosstalk architecture for ring-based optical space switch fabrics. , 2017, , .		8
66	Smart Routing Tables for Integrated Photonic Switch Fabrics. , 2017, , .		8
67	Automated Calibration and Characterization for Scalable Integrated Optical Switch Fabrics without Built-in Power Monitors. , 2017, , .		6
68	Automated Thermal Stabilization of Cascaded Silicon Photonic Ring Resonators for Reconfigurable WDM Applications. , 2017, , .		7
69	Joint Allocation of IT and Connectivity Resources for Survivable Services in Geographically Distributed Metro Data Centers. , 2017, , .		0
70	Software-Defined Networking Control Plane for Seamless Integration of Silicon Photonics in Datacom Networks. , 2017, , .		1
71	Programmable optical power distribution in silicon photonic platform. , 2017, , .		0
72	Quality of Transmission Prediction with Machine Learning for Dynamic Operation of Optical WDM Networks. , 2017, , .		21

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73	Software-defined control-plane for wavelength selective unicast and multicast of optical data in a silicon photonic platform. Optics Express, 2017, 25, 232.	1.7	26
74	Design Space Exploration of the Dragonfly Topology. Lecture Notes in Computer Science, 2017, , 57-74.	1.0	10
75	Ar+-Implanted Si-Waveguide Photodiodes for Mid-Infrared Detection. Photonics, 2016, 3, 46.	0.9	3
76	Crosstalk Penalty in Microring-Based Silicon Photonic Interconnect Systems. Journal of Lightwave Technology, 2016, 34, 4043-4052.	2.7	43
77	Energy-bandwidth design exploration of silicon photonic interconnects in 65nm CMOS. , 2016, , .		13
78	Loss and crosstalk of scalable MZI-based switch topologies in silicon photonic platform. , 2016, , .		3
79	Software-defined optical network for metro-scale geographically distributed data centers. Optics Express, 2016, 24, 12310.	1.7	24
80	End-to-End Modeling and Optimization of Power Consumption in HPC Interconnects. , 2016, , .		5
81	240 Gb/s mode and wavelength division multiplexed data transmission in Si photonics. , 2016, , .		2
82	Comprehensive Design Space Exploration of Silicon Photonic Interconnects. Journal of Lightwave Technology, 2016, 34, 2975-2987.	2.7	60
83	PhoenixSim. , 2016, , .		9
84	Programmable Dynamically-Controlled Silicon Photonic Switch Fabric. Journal of Lightwave Technology, 2016, 34, 2952-2958.	2.7	17
85	High-Efficiency Biwavelength Polarization Splitter-Rotator on the SOI Platform. IEEE Photonics Technology Letters, 2015, 27, 518-521.	1.3	20
86	Experimental demonstration of one-to-many virtual machine migration by reliable optical multicast. , 2015, , .		3
87	Optimized silicon photonic components for high-performance interconnect systems. , 2015, , .		0
88	Experimental demonstration of converged inter/intra data center network architecture. , 2015, , .		2
89	Silicon photonic interconnection networks in high performance datacom systems. , 2015, , .		0
90	High-speed BPSK modulation using a silicon modulator. , 2015, , .		0

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91	A software-defined optical gateway for converged inter/intra data center networks. , 2015, , .		5
92	Thermal stabilization of a microring resonator using bandgap temperature sensor. , 2015, , .		0
93	Optimization of microring-based filters for dense WDM silicon photonic interconnects. , 2015, , .		14
94	40-Gb/s BPSK modulation using a silicon modulator. , 2015, , .		0
95	Scaling silicon photonic switch fabrics for data center interconnection networks. Optics Express, 2015, 23, 1159.	1.7	115
96	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.	1.3	31
97	High-Speed BPSK Modulation in Silicon. IEEE Photonics Technology Letters, 2015, 27, 1329-1332.	1.3	7
98	Silicon Photonics for Exascale Systems. Journal of Lightwave Technology, 2015, 33, 547-562.	2.7	105
99	Design Methodology for Optimizing Optical Interconnection Networks in High Performance Systems. Lecture Notes in Computer Science, 2015, , 454-471.	1.0	9
100	A Compact Low-Power 320-Gb/s WDM Transmitter Based on Silicon Microrings. IEEE Photonics Journal, 2014, 6, 1-8.	1.0	32
101	Fast Wavelength Locking of a Microring Resonator. IEEE Photonics Technology Letters, 2014, 26, 2365-2368.	1.3	15
102	Ultra-compact 320 Gb/s and 160 Gb/s WDM transmitters based on silicon microrings. , 2014, , .		23
103	Resolving the thermal challenges for silicon microring resonator devices. Nanophotonics, 2014, 3, 269-281.	2.9	179
104	Reducing energy per delivered bit in silicon photonic interconnection networks. , 2014, , .		1
105	Design and characterization of a 30-GHz bandwidth low-power silicon traveling-wave modulator. Optics Communications, 2014, 321, 124-133.	1.0	69
106	Wavelength Locking and Thermally Stabilizing Microring Resonators Using Dithering Signals. Journal of Lightwave Technology, 2014, 32, 505-512.	2.7	121
107	A 10-Gb/s Silicon Microring Resonator-Based BPSK Link. IEEE Photonics Technology Letters, 2014, 26, 1805-1808.	1.3	13
108	Impact of photonic switch radix on realizing optical interconnection networks for exascale systems. , 2014, , .		5

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109	Intermodulation Crosstalk Characteristics of WDM Silicon Microring Modulators. IEEE Photonics Technology Letters, 2014, 26, 1478-1481.	1.3	28
110	High-Speed Silicon Modulator With Slow-Wave Electrodes and Fully Independent Differential Drive. Journal of Lightwave Technology, 2014, 32, 2240-2247.	2.7	63
111	Fast wavelength locking of a microring resonator. , 2014, , .		4
112	40-Gb/s silicon modulators for mid-reach applications at 1550 nm. , 2014, , .		0
113	Real-Time Power Control for Dynamic Optical Networksâ€"Algorithms and Experimentation. IEEE Journal on Selected Areas in Communications, 2014, 32, 1615-1628.	9.7	12
114	Scalability of silicon photonic microring based switch. , 2014, , .		3
115	Error-Free Operation of an All-Silicon Waveguide Photodiode at 1.9 $mu{m m}$. IEEE Photonics Technology Letters, 2013, 25, 2031-2034.	1.3	14
116	P-sync: A Photonically Enabled Architecture for Efficient Non-local Data Access. , 2013, , .		2
117	Microring resonance stabilization using thermal dithering. , 2013, , .		6
118	Ultra-low latency optical switching for short message sizes in cluster scale systems. , 2013, , .		4
119	Silicon photonic interconnection networks for data centers. , 2013, , .		5
120	Real-time power control for dynamic optical networks - Algorithms and experimentation. , 2013, , .		3
121	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.	1.9	25
122	First Demonstration of a Cross-Layer Enabled Network Node. Journal of Lightwave Technology, 2013, 31, 1512-1525.	2.7	3
123	Javanco: A software framework for optical network modelling and optimization. , 2013, , .		2
124	FPGA controlled microring based tunable add-drop filter. , 2013, , .		2
125	Modeling and simulation environment for photonic interconnection networks in high performance computing. , 2013, , .		1
126	Introduction to the Issue on Optical Interconnects for Data Centers. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 0200302-0200302.	1.9	2

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127	Experimental characterization of the optical-power upper bound in a silicon microring modulator. , 2012, , .		16
128	Optically interconnected data center architecture for bandwidth intensive energy efficient networking. , 2012, , .		9
129	Cross-layer enabled translucent optical network with real-time impairment awareness. , 2012, , .		1
130	4$,imes,$44 Gb/s Packet-Level Switching in a Second-Order Microring Switch. IEEE Photonics Technology Letters, 2012, 24, 1555-1557.	1.3	18
131	Characterization of Nonlinear Optical Crosstalk in Silicon Nanowaveguides. IEEE Photonics Technology Letters, 2012, 24, 185-187.	1.3	15
132	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.	1.3	19
133	A Data Rate- and Modulation Format-Independent Packet-Switched Optical Network Test-Bed. IEEE Photonics Technology Letters, 2012, 24, 377-379.	1.3	3
134	Colorless Optical Network Unit Based on Silicon Photonic Components for WDM PON. IEEE Photonics Technology Letters, 2012, 24, 1372-1374.	1.3	16
135	Experimental demonstration of wavelength-reconfigurable optical packet- and circuit-switched platform for data center networks. , 2012, , .		3
136	40-Gb/s DPSK Data Transmission Through a Silicon Microring Switch. IEEE Photonics Technology Letters, 2012, 24, 473-475.	1.3	30
137	Broadband Silicon Photonic Electrooptic Switch for Photonic Interconnection Networks. IEEE Photonics Technology Letters, 2011, 23, 504-506.	1.3	61
138	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.	1.3	2
139	DPSK Transmission Through Silicon Microring Switch for Photonic Interconnection Networks. IEEE Photonics Technology Letters, 2011, 23, 1103-1105.	1.3	11
140	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.	1.3	24
141	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.	1.9	103
142	Demonstration of Failure Reconfiguration via Cross-Layer Enabled Optical Switching Fabrics. IEEE Photonics Technology Letters, 2011, 23, 1679-1681.	1.3	4
143	Intelligent highly-functional cross-layer optimized interfaces for future access/aggregation networks. , 2011, , .		1
144	VANDAL: A tool for the design specification of nanophotonic networks. , 2011, , .		16

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145	Experimental demonstration of 10 gigabit ethernet-based optical interconnection network interface for large-scale computing systems. , 2011, , .		3
146	Broadband CMOS-Compatible Silicon Photonic Electro-Optic Switch for Photonic Networks-on-Chip. , 2010, , .		10
147	High-Performance Modulators and Switches for Silicon Photonic Networks-on-Chip. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 6-22.	1.9	109
148	PhoenixSim: A simulator for physical-layer analysis of chip-scale photonic interconnection networks. , 2010, , .		93
149	Cross-layer communications for high-bandwidth optical networks. , 2010, , .		3
150	Intermodulation crosstalk from silicon microring modulators in wavelength-parallel photonic networks-on-chip. , 2010, , .		7
151	Demonstration of 8×40-Gb/s wavelength-striped packet switching in a multi-terabit capacity optical network test-bed. , 2010, , .		5
152	Broadband wavelength conversion of 10-Gb/s DPSK signals in silicon waveguides. , 2010, , .		0
153	Tools and methodologies for designing energy-efficient photonic networks-on-chip for highperformance chip multiprocessors. , 2010, , .		2
154	First experimental demonstration of optically-connected SDRAM across a transparent optical network test-bed. , 2010, , .		1
155	Optically interconnected high performance data centers. , 2010, , .		12
156	Circuit-Switched Memory Access in Photonic Interconnection Networks for High-Performance Embedded Computing. , 2010, , .		31
157	Demonstration of Asynchronous Operation of a Multiwavelength Optical Packet-Switched Fabric. IEEE Photonics Technology Letters, 2010, 22, 1223-1225.	1.3	6
158	Implementing an Optical QoS Encoding Scheme in an Optical Packet Switching Fabric Test-Bed. IEEE Photonics Technology Letters, 2010, 22, 1518-1520.	1.3	1
159	Cross-layer signal monitoring in an optical packet-switching test-bed via real-time burst sampling. , 2010, , .		4
160	Broadband Operation of Nanophotonic Router for Silicon Photonic Networks-on-Chip. IEEE Photonics Technology Letters, 2010, 22, 926-928.	1.3	88
161	On-chip optical interconnection network performance evaluation using power penalty metrics from silicon photonic modulators. , 2010, , .		4
162	Demonstration of 1.28-Tb/s transmission in next-generation nanowires for photonic networks-on-chip. , 2010, , .		3

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163	QoS-aware cross-layer multicasting for optical packet-switched networks: Simulation exploration and test-bed demonstration. , 2010, , .		0
164	Chip scale photonic interconnects for energy-performance optimized computing. , 2010, , .		1
165	Nanophotonic interconnection networks in multicore embedded computing. , 2009, , .		1
166	An Experimental Validation of a Wavelength-Striped, Packet Switched, Optical Interconnection Network. Journal of Lightwave Technology, 2009, 27, 841-850.	2.7	37
167	High-Speed 2\$, imes ,\$2 Switch for Multiwavelength Silicon-Photonic Networksâ€"On-Chip. Journal of Lightwave Technology, 2009, 27, 2900-2907.	2.7	67
168	Ultrahigh-Bandwidth Silicon Photonic Nanowire Waveguides for On-Chip Networks. IEEE Photonics Technology Letters, 2008, 20, 398-400.	1.3	128
169	All-Optical Comb Switch for Multiwavelength Message Routing in Silicon Photonic Networks. IEEE Photonics Technology Letters, 2008, 20, 767-769.	1.3	159
170	Cross-Layer Communication With an Optical Packet Switched Network via a Message Injection Control Interface. IEEE Photonics Technology Letters, 2008, 20, 967-969.	1.3	3
171	The Data Vortex Optical Packet Switched Interconnection Network. Journal of Lightwave Technology, 2008, 26, 1777-1789.	2.7	102
172	Optical 4x4 hitless slicon router for optical networks-on-chip (NoC). Optics Express, 2008, 16, 15915.	1.7	355
173	Photonic Networks-on-Chip for Future Generations of Chip Multiprocessors. IEEE Transactions on Computers, 2008, 57, 1246-1260.	2.4	812
174	Nanophotonic Optical Interconnection Network Architecture for On-Chip and Off-Chip Communications. , 2008, , .		25
175	High-Speed 2&#x00D7;2 switch for multi-wavelength message routing in on-chip silicon photonic networks. , 2008, , .		6
176	Design Exploration of Optical Interconnection Networks for Chip Multiprocessors. , 2008, , .		59
177	Thermally active 4×4 non-blocking switch for networks-on-chip. , 2008, , .		8
178	Priority encoding scheme for contention resolution in optical packet-switched networks. , 2008, , .		1
179	250 Gb/s multi-wavelength operation of microring resonator-based broadband comb switch for silicon photonic networks-on-chip. , 2008, , .		3
180	Interface Optical Buffer and Packet-Switched Network Cross-Layer Signaling Demonstration. , 2008, , .		1

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181	Insertion loss analysis in a photonic interconnection network for on-chip and off-chip communications. , 2008, , .		30
182	Photonic networks-on-chip: Opportunities and challenges. , 2008, , .		9
183	Nanophotonic interconnection networks for multicore embedded computing systems. , 2008, , .		0
184	Demonstration of All-Optical Multi-Wavelength Message Routing for Silicon Photonic Networks. , 2008, , .		19
185	Silicon Photonic On-Chip Optical Interconnection Networks. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	4
186	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
187	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
188	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
189	Demonstrated 4Ã—4 Gbps Silicon Photonic Integrated Parallel Electronic to WDM Interface. , 2007, , .		5
190	Experimental Demonstration of a Complete SPINet Optical Packet Switched Interconnection Network. , 2007, , .		6
191	Photonic NoC for DMA Communications in Chip Multiprocessors. , 2007, , .		71
192	Transparent, Low Power Optical WDM Interface for Off-Chip Interconnects. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1
193	A Modular, Scalable, Extensible, and Transparent Optical Packet Buffer. Journal of Lightwave Technology, 2007, 25, 978-985.	2.7	26
194	On the Design of a Photonic Network-on-Chip. , 2007, , .		214
195	An All-Optical PCI-Express Network Interface for Optical Packet Switched Networks. , 2007, , .		3
196	The Data Vortex, an All Optical Path Multicomputer Interconnection Network. IEEE Transactions on Parallel and Distributed Systems, 2007, 18, 409-420.	4.0	42
197	Characterization of a 4$\times$4 Gb/s Parallel Electronic Bus to WDM Optical Link Silicon Photonic Translator. IEEE Photonics Technology Letters, 2007, 19, 456-458.	1.3	29
198	Optimization of a Switching Node for Optical Multistage Interconnection Networks. IEEE Photonics Technology Letters, 2007, 19, 1658-1660.	1.3	8

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199	Photonic NoC for DMA Communications in Chip Multiprocessors. , 2007, , .		7
200	A Novel Optical Buffer Architecture for Optical Packet Switching Routers. , 2006, , .		4
201	Low Latency Optical Packet Switched Interconnection Networks. , 2006, , .		0
202	Empirical Method for Determining SOA Gain Based on ASE Characterization. IEEE Photonics Technology Letters, 2006, 18, 2224-2226.	1.3	2
203	Polarization-Dependent Gain in SOA-Based Optical Multistage Interconnection Networks. Journal of Lightwave Technology, 2006, 24, 3959-3967.	2.7	21
204	Photonic Networks for Intra-Chip, Inter-Chip, and Box Interconnects in High-Performance Computing. , 2006, , .		7
205	An FDL-Based Photonic Switching Node for a Data Vortex Optical Packet Switched Interconnection Network. , 2006, , .		1
206	High data rate signal integrity in micron-scale silicon ring resonators. , 2006, , .		4
207	Signal Degradation through a 12 Ã— 12 Optical Packet Switching Network. , 2006, , .		2
208	Bistable Switching Node for Optical Packet Switched Networks. , 2006, , .		2
209	Signal Integrity of RZ Data in Micron-scale Silicon Ring Resonators. , 2006, , .		1
210	Optical Packet Routing in Distributed Grid Computing Architectures. , 2006, , .		0
211	An Enhanced Buffered Switching Node for a Data Vortex Interconnection Network. , 2006, , .		2