

Maurizio Burla

List of Publications by Year in descending order

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Version: 2024-02-01

92
papers

2,555
citations

236925

25
h-index

302126

39
g-index

94
all docs

94
docs citations

94
times ranked

1682
citing authors

#	ARTICLE	IF	CITATIONS
1	Silicon nitride microwave photonic circuits. <i>Optics Express</i> , 2013, 21, 22937.	3.4	268
2	Novel Ring Resonator-Based Integrated Photonic Beamformer for Broadband Phased Array Receive Antennas—Part I: Design and Performance Analysis. <i>Journal of Lightwave Technology</i> , 2010, 28, 3-18.	4.6	225
3	Novel Ring Resonator-Based Integrated Photonic Beamformer for Broadband Phased Array Receive Antennas—Part II: Experimental Prototype. <i>Journal of Lightwave Technology</i> , 2010, 28, 19-31.	4.6	211
4	Integrated waveguide Bragg gratings for microwave photonics signal processing. <i>Optics Express</i> , 2013, 21, 25120.	3.4	183
5	500 GHz plasmonic Mach-Zehnder modulator enabling sub-THz microwave photonics. <i>APL Photonics</i> , 2019, 4, .	5.7	176
6	On-chip CMOS compatible reconfigurable optical delay line with separate carrier tuning for microwave photonic signal processing. <i>Optics Express</i> , 2011, 19, 21475.	3.4	175
7	Low-loss, high-index-contrast Si ₃ N ₄ /SiO ₂ optical waveguides for optical delay lines in microwave photonics signal processing. <i>Optics Express</i> , 2011, 19, 23162.	3.4	136
8	On-chip programmable ultra-wideband microwave photonic phase shifter and true time delay unit. <i>Optics Letters</i> , 2014, 39, 6181.	3.3	94
9	Wideband dynamic microwave frequency identification system using a low-power ultracompact silicon photonic chip. <i>Nature Communications</i> , 2016, 7, 13004.	12.8	91
10	RF Engineering Meets Optoelectronics: Progress in Integrated Microwave Photonics. <i>IEEE Microwave Magazine</i> , 2015, 16, 28-45.	0.8	83
11	Multiwavelength-Integrated Optical Beamformer Based on Wavelength Division Multiplexing for 2-D Phased Array Antennas. <i>Journal of Lightwave Technology</i> , 2014, 32, 3509-3520.	4.6	78
12	Microwave plasmonic mixer in a transparent fibre—wireless link. <i>Nature Photonics</i> , 2018, 12, 749-753.	31.4	67
13	Nano—opto-electro-mechanical switches operated at CMOS-level voltages. <i>Science</i> , 2019, 366, 860-864.	12.6	64
14	Reconfigurable photonic generation of broadband chirped waveforms using a single CW laser and low-frequency electronics. <i>Nature Communications</i> , 2018, 9, 2438.	12.8	53
15	Harnessing nonlinearities near material absorption resonances for reducing losses in plasmonic modulators. <i>Optical Materials Express</i> , 2017, 7, 2168.	3.0	51
16	Programmable optical processor chips: toward photonic RF filters with DSP-level flexibility and MHz-band selectivity. <i>Nanophotonics</i> , 2017, 7, 421-454.	6.0	48
17	Optical signal processing based on silicon photonics waveguide Bragg gratings: review. <i>Frontiers of Optoelectronics</i> , 2018, 11, 163-188.	3.7	44
18	System integration and radiation pattern measurements of a phased array antenna employing an integrated photonic beamformer for radio astronomy applications. <i>Applied Optics</i> , 2012, 51, 789.	1.8	34

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19	Impulse radio ultrawideband pulse shaper based on a programmable photonic chip frequency discriminator. Optics Express, 2011, 19, 24838.	3.4	33
20	Sub-GHz-resolution C-band Nyquist-filtering interleaver on a high-index-contrast photonic integrated circuit. Optics Express, 2016, 24, 5715.	3.4	33
21	Plasmonic phased array feeder enabling ultra-fast beam steering at millimeter waves. Optics Express, 2016, 24, 25608.	3.4	32
22	TriPleX waveguide platform: low-loss technology over a wide wavelength range. Proceedings of SPIE, 2013, , .	0.8	28
23	Terahertz-bandwidth photonic fractional Hilbert transformer based on a phase-shifted waveguide Bragg grating on silicon. Optics Letters, 2014, 39, 6241.	3.3	28
24	Towards on-chip photonic-assisted radio-frequency spectral measurement and monitoring. Optica, 2020, 7, 434.	9.3	28
25	Integrated Photonic $\{m K\}_{m u}$ -Band Beamformer Chip With Continuous Amplitude and Delay Control. IEEE Photonics Technology Letters, 2013, 25, 1145-1148.	2.5	27
26	Transparent Optical-THz-Optical Link at 240/192 Gbit/s Over 5/115 m Enabled by Plasmonics. Journal of Lightwave Technology, 2022, 40, 1690-1697.	4.6	24
27	Nyquist-Filtering (De)Multiplexer Using a Ring Resonator Assisted Interferometer Circuit. Journal of Lightwave Technology, 2016, 34, 1732-1738.	4.6	20
28	Multipass Performance of a Chip-Enhanced WSS for Nyquist-WDM Sub-Band Switching. Journal of Lightwave Technology, 2016, 34, 1824-1830.	4.6	18
29	Photonic integrated circuit implementation of a sub-GHz-selectivity frequency comb filter for optical clock multiplication. Optics Express, 2017, 25, 27635.	3.4	18
30	Dual-Frequency Distributed Feedback Laser With Optical Frequency Locked Loop for Stable Microwave Signal Generation. IEEE Photonics Technology Letters, 2012, 24, 1431-1433.	2.5	14
31	Photonic Hilbert transformers based on laterally apodized integrated waveguide Bragg gratings on a SOI wafer. Optics Letters, 2016, 41, 5039.	3.3	13
32	Transparent Optical-THz-Optical Link Transmission over 5/115 m at 240/190 Gbit/s Enabled by Plasmonics. , 2021, , .		12
33	11â€GHzâ€Bandwidth Photonic Radar using MHz Electronics. Laser and Photonics Reviews, 2022, 16, .	8.7	11
34	Integrated microwave photonic splitter with reconfigurable amplitude, phase, and delay offsets. Optics Letters, 2015, 40, 5618.	3.3	10
35	Separate carrier tuning scheme for integrated optical delay lines in photonic beamformers. , 2011, , .		9
36	On-chip ultra-wideband microwave photonic phase shifter and true time delay line based on a single phase-shifted waveguide Bragg grating. , 2013, , .		9

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37	Experimental demonstration of sub-picosecond optical pulse shaping in silicon based on discrete space-to-time mapping. Optics Letters, 2015, 40, 5423.	3.3	9
38	Ultra-high Q multimode waveguide ring resonators for microwave photonics signal processing. , 2015, , .		9
39	Integrated Optical Beamformers. , 2015, , .		7
40	THz-bandwidth photonic Hilbert transformers based on fiber Bragg gratings in transmission. Optics Letters, 2015, 40, 41.	3.3	6
41	300 GHz Plasmonic Mixer. , 2019, , .		6
42	Pre-equalization technique enabling 70 Gbit/s photonic-wireless link at 60 GHz. Optics Express, 2016, 24, 30350.	3.4	5
43	Editorial Special Issue on Advances in Integrated Microwave Photonics. IEEE Photonics Technology Letters, 2018, 30, 1813-1813.	2.5	5
44	On-chip, CMOS-compatible, hardware-compressive integrated photonic beamformer based on WDM. , 2013, , .		4
45	On-Chip Instantaneous Microwave Frequency Measurement System based on a Waveguide Bragg Grating on Silicon. , 2015, , .		4
46	5.6-GHz-Bandwidth Photonic Stepped-Frequency Radar using MHz-level Frequency-Shifting Modulation. , 2020, , .		4
47	Optical generation of Nyquist-spacing super-channel using a ring resonator-based flat-top interleaver. , 2015, , .		3
48	Sub-V Opto-Electro-Mechanical Switch. , 2019, , .		3
49	500 GHz Plasmonic Mach-Zehnder Modulator. , 2019, , .		3
50	Plasmonics for Communications. , 2018, , .		3
51	Microwave plasmonics: A novel platform for RF photonics. , 2016, , .		3
52	Optical phase synchronization in coherent optical beamformers for phased array receive antennas. , 2009, , .		2
53	Squint-free beamsteering demonstration using a photonic integrated beamformer based on optical ring resonators. , 2010, , .		2
54	Low-loss and programmable integrated photonic beamformer for electronically-steered broadband phased array antennas. , 2011, , .		2

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55	A novel measurement technique to estimate the RF beat-linewidth of free-running heterodyning system using a photonic discriminator. , 2011, , .		2
56	Photonic integration and components development for a K<inf>u</inf>-band phased array antenna system. , 2011, , .		2
57	CMOS-compatible integrated optical delay line for broadband K<inf>u</inf>-band satellite communications. , 2012, , .		2
58	2.5 THz bandwidth on-chip photonic fractional Hilbert transformer based on a phase-shifted waveguide Bragg grating. , 2013, , .		2
59	Frequency agile microwave photonics notch filter based on a waveguide Bragg grating on silicon. , 2014, , .		2
60	Novel applications of plasmonics and photonics devices to sub-THz wireless. , 2020, , .		2
61	Investigation on the performance of an optically generated RF local oscillator signal in K<inf>u</inf>-band DVB-S systems. , 2011, , .		1
62	Widely tunable microwave photonics notch filter based on a waveguide Bragg grating on silicon. , 2014, , .		1
63	On-chip Quasi-THz Bandwidth Microwave Photonic Phase Shifter based on a Waveguide Bragg Grating on Silicon. , 2014, , .		1
64	A wavelength selective switch for optical add/drop multiplexing of sub-bands within Nyquist WDM super-channels. , 2015, , .		1
65	Wired and wireless high-speed communications enabled by plasmonics. , 2016, , .		1
66	Long-Duration Optical Pulse Shaping and Complex Coding on SOI. IEEE Photonics Journal, 2016, 8, 1-7.	2.0	1
67	Reconfigurable photonic generation of arbitrary RF chirped waveforms based on a single CW laser. , 2017, , .		1
68	Nonlinear Distortions in Plasmonic Mach-Zehnder Modulators. , 2018, , .		1
69	Plasmonic Modulators for Microwave Photonics Applications. , 2017, , .		1
70	Ultrafast Beam Steering Enabled by Photonics & Plasmonics. , 2018, , .		1
71	Integrated photonic and plasmonic technologies for microwave signal processing enabling mm-wave and sub-THz wireless communication systems. , 2019, , .		1
72	70 Gbit/s photonic wireless link at 60 GHz. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
73	Development of an integrated photonic beamformer for electronically-steered Ku-band phased array antenna. , 2011, , .		0
74	Highly stable microwave carrier generation using a dual-frequency distributed feedback laser. , 2012, , .		0
75	Self-referenced non-interferometric complete optical signal characterization from intensity-only measurements. , 2013, , .		0
76	On-chip optical pulse shaping based on discrete space-to-time mapping in concatenated co-directional couplers. , 2015, , .		0
77	Plasmonic Organic Hybrid Bragg Grating Modulator. , 2016, , .		0
78	Agile photonic generation of arbitrary RF chirped waveforms based on a single CW laser. , 2017, , .		0
79	What can Plasmonics Bring to Microwave Photonics?. , 2018, , .		0
80	Plasmonics for Next-Generation Wireless Systems. , 2018, , .		0
81	aCryComm: attojoule cryogenic communication. , 2021, , .		0
82	Photonic Hilbert transformer based on laterally apodized waveguide Bragg gratings on a SOI wafer. , 2016, , .		0
83	Long-duration, picosecond optical pulse shaping on SOI using discrete space-to-time mapping. , 2016, , .		0
84	Exploiting Material Resonances to Reduce Losses in Plasmonic Modulators. , 2017, , .		0
85	Agile photonic generation of arbitrary RF chirped waveforms. , 2017, , .		0
86	Plasmonics for RF Photonics. , 2018, , .		0
87	Microwave Nanophotonic Technologies for Instantaneous Frequency Measurement Systems. , 2018, , .		0
88	Microwave photonic signal processing using silicon photonic Bragg gratings (Conference) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142 Td		0
89	Centimetre-Spatial-Resolution Photonics-Based Stepped-Frequency Radar: Implementation and Comparison. , 2020, , .		0
90	Plasmonic phased array feeder enabling symbol-by-symbol mm-wave beam steering at 60 GHz. , 2016, , .		0

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91	Integrated Microwave Photonic Circuits for Beamforming. , 2020, , .		0
92	Plasmonics in Future Radio Communications: Potential and Challenges. , 2022, , .		0