

Maurizio Burla

List of Publications by Year in descending order

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92
papers

2,555
citations

236925

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94
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94
docs citations

94
times ranked

1682
citing authors

#	ARTICLE	IF	CITATIONS
1	11â€GHzâ€Bandwidth Photonic Radar using MHz Electronics. Laser and Photonics Reviews, 2022, 16, .	8.7	11
2	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
3	Plasmonics in Future Radio Communications: Potential and Challenges. , 2022, , .		0
4	aCryComm: attojoule cryogenic communication. , 2021, , .		0
5	Transparent Optical-THz-Optical Link Transmission over 5/115 m at 240/190 Gbit/s Enabled by Plasmonics. , 2021, , .		12
6	Towards on-chip photonic-assisted radio-frequency spectral measurement and monitoring. Optica, 2020, 7, 434.	9.3	28
7	Novel applications of plasmonics and photonics devices to sub-THz wireless. , 2020, , .		2
8	Centimetre-Spatial-Resolution Photonics-Based Stepped-Frequency Radar: Implementation and Comparison. , 2020, , .		0
9	5.6-GHz-Bandwidth Photonic Stepped-Frequency Radar using MHz-level Frequency-Shifting Modulation. , 2020, , .		4
10	Integrated Microwave Photonic Circuits for Beamforming. , 2020, , .		0
11	Nanoâ€opto-electro-mechanical switches operated at CMOS-level voltages. Science, 2019, 366, 860-864.	12.6	64
12	500 GHz plasmonic Mach-Zehnder modulator enabling sub-THz microwave photonics. APL Photonics, 2019, 4, .	5.7	176
13	300 GHz Plasmonic Mixer. , 2019, , .		6
14	Sub-V Opto-Electro-Mechanical Switch. , 2019, , .		3
15	500 GHz Plasmonic Mach-Zehnder Modulator. , 2019, , .		3
16	Integrated photonic and plasmonic technologies for microwave signal processing enabling mm-wave and sub-THz wireless communication systems. , 2019, , .		1
17	Editorial Special Issue on Advances in Integrated Microwave Photonics. IEEE Photonics Technology Letters, 2018, 30, 1813-1813.	2.5	5
18	Nonlinear Distortions in Plasmonic Mach-Zehnder Modulators. , 2018, , .		1

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19	What can Plasmonics Bring to Microwave Photonics?. , 2018, , .		0
20	Microwave plasmonic mixer in a transparent fibreâ€“wireless link. Nature Photonics, 2018, 12, 749-753.	31.4	67
21	Optical signal processing based on silicon photonics waveguide Bragg gratings: review. Frontiers of Optoelectronics, 2018, 11, 163-188.	3.7	44
22	Reconfigurable photonic generation of broadband chirped waveforms using a single CW laser and low-frequency electronics. Nature Communications, 2018, 9, 2438.	12.8	53
23	Plasmonics for Next-Generation Wireless Systems. , 2018, , .		0
24	Plasmonics for Communications. , 2018, , .		3
25	Plasmonics for RF Photonics. , 2018, , .		0
26	Ultrafast Beam Steering Enabled by Photonics & Plasmonics. , 2018, , .		1
27	Microwave Nanophotonic Technologies for Instantaneous Frequency Measurement Systems. , 2018, , .		0
28	Microwave photonic signal processing using silicon photonic Bragg gratings (Conference) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 Td		
29	Programmable optical processor chips: toward photonic RF filters with DSP-level flexibility and MHz-band selectivity. Nanophotonics, 2017, 7, 421-454.	6.0	48
30	Agile photonic generation of arbitrary RF chirped waveforms based on a single CW laser. , 2017, , .		0
31	Photonic integrated circuit implementation of a sub-GHz-selectivity frequency comb filter for optical clock multiplication. Optics Express, 2017, 25, 27635.	3.4	18
32	Harnessing nonlinearities near material absorption resonances for reducing losses in plasmonic modulators. Optical Materials Express, 2017, 7, 2168.	3.0	51
33	Reconfigurable photonic generation of arbitrary RF chirped waveforms based on a single CW laser. , 2017, , .		1
34	Plasmonic Modulators for Microwave Photonics Applications. , 2017, , .		1
35	Exploiting Material Resonances to Reduce Losses in Plasmonic Modulators. , 2017, , .		0
36	Agile photonic generation of arbitrary RF chirped waveforms. , 2017, , .		0

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37	Plasmonic Organic Hybrid Bragg Grating Modulator. , 2016, , .		0
38	Plasmonic phased array feeder enabling ultra-fast beam steering at millimeter waves. Optics Express, 2016, 24, 25608.	3.4	32
39	Pre-equalization technique enabling 70 Gbit/s photonic-wireless link at 60 GHz. Optics Express, 2016, 24, 30350.	3.4	5
40	Wired and wireless high-speed communications enabled by plasmonics. , 2016, , .		1
41	Long-Duration Optical Pulse Shaping and Complex Coding on SOI. IEEE Photonics Journal, 2016, 8, 1-7.	2.0	1
42	Wideband dynamic microwave frequency identification system using a low-power ultracompact silicon photonic chip. Nature Communications, 2016, 7, 13004.	12.8	91
43	Sub-GHz-resolution C-band Nyquist-filtering interleaver on a high-index-contrast photonic integrated circuit. Optics Express, 2016, 24, 5715.	3.4	33
44	Multipass Performance of a Chip-Enhanced WSS for Nyquist-WDM Sub-Band Switching. Journal of Lightwave Technology, 2016, 34, 1824-1830.	4.6	18
45	Nyquist-Filtering (De)Multiplexer Using a Ring Resonator Assisted Interferometer Circuit. Journal of Lightwave Technology, 2016, 34, 1732-1738.	4.6	20
46	Photonic Hilbert transformers based on laterally apodized integrated waveguide Bragg gratings on a SOI wafer. Optics Letters, 2016, 41, 5039.	3.3	13
47	Photonic Hilbert transformer based on laterally apodized waveguide Bragg gratings on a SOI wafer. , 2016, , .		0
48	Long-duration, picosecond optical pulse shaping on SOI using discrete space-to-time mapping. , 2016, , .		0
49	70 Gbit/s photonic wireless link at 60 GHz. , 2016, , .		1
50	Plasmonic phased array feeder enabling symbol-by-symbol mm-wave beam steering at 60 GHz. , 2016, , .		0
51	Microwave plasmonics: A novel platform for RF photonics. , 2016, , .		3
52	Optical generation of Nyquist-spacing super-channel using a ring resonator-based flat-top interleaver. , 2015, , .		3
53	On-chip optical pulse shaping based on discrete space-to-time mapping in concatenated co-directional couplers. , 2015, , .		0
54	Integrated microwave photonic splitter with reconfigurable amplitude, phase, and delay offsets. Optics Letters, 2015, 40, 5618.	3.3	10

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55	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
56	Ultra-high Q multimode waveguide ring resonators for microwave photonics signal processing. , 2015, , .		9
57	A wavelength selective switch for optical add/drop multiplexing of sub-bands within Nyquist WDM super-channels. , 2015, , .		1
58	THz-bandwidth photonic Hilbert transformers based on fiber Bragg gratings in transmission. Optics Letters, 2015, 40, 41.	3.3	6
59	RF Engineering Meets Optoelectronics: Progress in Integrated Microwave Photonics. IEEE Microwave Magazine, 2015, 16, 28-45.	0.8	83
60	On-Chip Instantaneous Microwave Frequency Measurement System based on a Waveguide Bragg Grating on Silicon. , 2015, , .		4
61	Integrated Optical Beamformers. , 2015, , .		7
62	On-chip programmable ultra-wideband microwave photonic phase shifter and true time delay unit. Optics Letters, 2014, 39, 6181.	3.3	94
63	Widely tunable microwave photonics notch filter based on a waveguide Bragg grating on silicon. , 2014, , .		1
64	Frequency agile microwave photonics notch filter based on a waveguide Bragg grating on silicon. , 2014, , .		2
65	Terahertz-bandwidth photonic fractional Hilbert transformer based on a phase-shifted waveguide Bragg grating on silicon. Optics Letters, 2014, 39, 6241.	3.3	28
66	Multiwavelength-Integrated Optical Beamformer Based on Wavelength Division Multiplexing for 2-D Phased Array Antennas. Journal of Lightwave Technology, 2014, 32, 3509-3520.	4.6	78
67	On-chip Quasi-THz Bandwidth Microwave Photonic Phase Shifter based on a Waveguide Bragg Grating on Silicon. , 2014, , .		1
68	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
69	TriPleX waveguide platform: low-loss technology over a wide wavelength range. Proceedings of SPIE, 2013, , .	0.8	28
70	On-chip ultra-wideband microwave photonic phase shifter and true time delay line based on a single phase-shifted waveguide Bragg grating. , 2013, , .		9
71	On-chip, CMOS-compatible, hardware-compressive integrated photonic beamformer based on WDM. , 2013, , .		4
72	Silicon nitride microwave photonic circuits. Optics Express, 2013, 21, 22937.	3.4	268

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73	Integrated waveguide Bragg gratings for microwave photonics signal processing. Optics Express, 2013, 21, 25120.	3.4	183
74	Self-referenced non-interferometric complete optical signal characterization from intensity-only measurements. , 2013, , .		0
75	2.5 THz bandwidth on-chip photonic fractional Hilbert transformer based on a phase-shifted waveguide Bragg grating. , 2013, , .		2
76	System integration and radiation pattern measurements of a phased array antenna employing an integrated photonic beamformer for radio astronomy applications. Applied Optics, 2012, 51, 789.	1.8	34
77	Highly stable microwave carrier generation using a dual-frequency distributed feedback laser. , 2012, , .		0
78	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
79	CMOS-compatible integrated optical delay line for broadband K<inf>u</inf>-band satellite communications. , 2012, , .		2
80	Low-loss and programmable integrated photonic beamformer for electronically-steered broadband phased array antennas. , 2011, , .		2
81	Investigation on the performance of an optically generated RF local oscillator signal in K<inf>u</inf>-band DVB-S systems. , 2011, , .		1
82	A novel measurement technique to estimate the RF beat-linewidth of free-running heterodyning system using a photonic discriminator. , 2011, , .		2
83	Separate carrier tuning scheme for integrated optical delay lines in photonic beamformers. , 2011, , .		9
84	On-chip CMOS compatible reconfigurable optical delay line with separate carrier tuning for microwave photonic signal processing. Optics Express, 2011, 19, 21475.	3.4	175
85	Low-loss, high-index-contrast Si ₃ N ₄ /SiO ₂ optical waveguides for optical delay lines in microwave photonics signal processing. Optics Express, 2011, 19, 23162.	3.4	136
86	Impulse radio ultrawideband pulse shaper based on a programmable photonic chip frequency discriminator. Optics Express, 2011, 19, 24838.	3.4	33
87	Photonic integration and components development for a K<inf>u</inf>-band phased array antenna system. , 2011, , .		2
88	Development of an integrated photonic beamformer for electronically-steered K<inf>u</inf>-band phased array antenna. , 2011, , .		0
89	Novel Ring Resonator-Based Integrated Photonic Beamformer for Broadband Phased Array Receive Antennasâ€”Part I: Design and Performance Analysis. Journal of Lightwave Technology, 2010, 28, 3-18.	4.6	225
90	Novel Ring Resonator-Based Integrated Photonic Beamformer for Broadband Phased Array Receive Antennasâ€”Part II: Experimental Prototype. Journal of Lightwave Technology, 2010, 28, 19-31.	4.6	211

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91	Squint-free beamsteering demonstration using a photonic integrated beamformer based on optical ring resonators. , 2010, , .		2
92	Optical phase synchronization in coherent optical beamformers for phased array receive antennas. , 2009, , .		2