Yanne K Chembo

List of Publications by Year
in descending order

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94 papers	4,473 citations	117625 34 h-index	102487 66 g-index
95 all docs	95 docs citations	95 times ranked	2280 citing authors

#	Article	IF	Citations
1	Estimation of the CHSH Parameter Using HOM Interference. IEEE Transactions on Quantum Engineering, 2022, 3, 1-10.	4.9	1
2	On the Universality of Microwave Envelope Equations for Narrowband Optoelectronic Oscillators. Journal of Lightwave Technology, 2022, 40, 6131-6138.	4.6	2
3	Kerr optical frequency comb generation using whispering-gallery-mode resonators in the pulsed-pump regime. Physical Review A, 2021, 103, .	2.5	4
4	Classification of IQ-Modulated Signals Based on Reservoir Computing With Narrowband Optoelectronic Oscillators. IEEE Journal of Quantum Electronics, 2021, 57, 1-8.	1.9	12
5	Stochastic Analysis of Miniature Optoelectronic Oscillators Based on Whispering-Gallery Mode Electrooptical Modulators. IEEE Photonics Journal, 2021, 13, 1-10.	2.0	3
6	Topological frequency combs and nested temporal solitons. Nature Physics, 2021, 17, 1169-1176.	16.7	39
7	Quantum analysis of polarization entanglement degradation induced by multiple-photon-pair generation. Physical Review A, 2021, 104, .	2.5	2
8	Ultra-broadband Kerr microcomb through soliton spectral translation. Nature Communications, 2021, 12, 7275.	12.8	37
9	Nonlinear dynamics in an optoelectronic feedback delay oscillator with piecewise linear transfer functions from the laser diode and photodiode. Physical Review E, 2020, 102, 042217.	2.1	6
10	Fluctuations and correlations in Kerr optical frequency combs with additive Gaussian noise. Chaos, 2020, 30, 083146.	2.5	5
11	Transverse Patterns and Dual-Frequency Lasing in a Low-Noise Nonplanar-Ring Orbital-Angular-Momentum Oscillator. Physical Review Applied, 2020, 13, .	3.8	5
12	Machine learning based on reservoir computing with time-delayed optoelectronic and photonic systems. Chaos, 2020, 30, 013111.	2.5	51
13	Nonlinear dynamics of miniature optoelectronic oscillators based on whispering-gallery mode electrooptical modulators. Optics Express, 2020, 28, 30656.	3.4	6
14	Coexistence of bright and dark cavity solitons in microresonators with zero, normal, and anomalous group-velocity dispersion: a switching wave approach. Journal of the Optical Society of America B: Optical Physics, 2020, 37, A69.	2.1	11
15	Second-order Nonlinear Effects and Photon Scattering in Ultra-high-Q Crystalline WGMRs. , 2020, , 37-77.		0
16	(INVITED) Monolithic total internal reflection resonators for applications in photonics. Optical Materials: X, 2019, 2, 100017.	0.8	13
17	Optoelectronic oscillators with time-delayed feedback. Reviews of Modern Physics, 2019, 91, .	45.6	106
18	Dynamics of Wideband Time-Delayed Optoelectronic Oscillators With Nonlinear Filters. IEEE Journal of Quantum Electronics, 2019, 55, 1-6.	1.9	10

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19	A normal form method for the determination of oscillations characteristics near the primary Hopf bifurcation in bandpass optoelectronic oscillators: Theory and experiment. Chaos, 2019, 29, 033104.	2.5	8
20	Nine-frequency-path quantum interferometry over 60 km of optical fiber. Physical Review A, 2019, 99, .	2.5	9
21	Spontaneous generation of orbital angular momentum crystals using a monolithic Nd:YAG nonplanar ring laser. Optics Letters, 2019, 44, 203.	3.3	13
22	On the transition to secondary Kerr combs in whispering-gallery mode resonators. Optics Letters, 2019, 44, 3078.	3.3	11
23	Advances in quantum optical frequency combs. , 2019, , .		0
24	Dynamics of Optoelectronic Oscillators With Electronic and Laser Nonlinearities. IEEE Journal of Quantum Electronics, 2018, 54, 1-7.	1.9	16
25	Micro-combs: A novel generation of optical sources. Physics Reports, 2018, 729, 1-81.	25.6	448
26	Dependence of quality factor on surface roughness in crystalline whispering-gallery mode resonators. Optics Letters, 2018, 43, 495.	3.3	23
27	Dynamical complexity and computation in recurrent neural networks beyond their fixed point. Scientific Reports, 2018, 8, 3319.	3.3	12
28	Low-Noise X-Band Tunable Microwave Generator Based on a Semiconductor Laser With Feedback. IEEE Photonics Technology Letters, 2018, 30, 1597-1600.	2.5	18
29	A taxonomy of optical dissipative structures in whispering-gallery mode resonators with Kerr nonlinearity. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170381.	3.4	8
30	Neutral Mounting of Ultrahigh Q Whispering Gallery Mode disc-Resonators for Metrological Applications. IEEE Photonics Journal, 2017, 9, 1-8.	2.0	3
31	High-Speed Photonic Reservoir Computing Using a Time-Delay-Based Architecture: Million Words per Second Classification. Physical Review X, 2017, 7, .	8.9	241
32	Advances in microwave generation using Kerr optical frequency combs. Proceedings of SPIE, 2017, , .	0.8	0
33	Multi-Gbit/s optical phase chaos communications using a time-delayed optoelectronic oscillator with a three-wave interferometer nonlinearity. Chaos, 2017, 27, 114311.	2.5	23
34	Existence and switching behavior of bright and dark Kerr solitons in whispering-gallery mode resonators with zero group-velocity dispersion. European Physical Journal D, 2017, 71, 1.	1.3	18
35	Design of X-Cut and Z-Cut Lithium Niobate Whispering-Gallery-Mode Disk-Resonators With High Quality Factors. IEEE Photonics Journal, 2017, 9, 1-8.	2.0	3
36	Theory and applications of the Lugiato-Lefever Equation. European Physical Journal D, 2017, 71, 1.	1.3	40

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37	Lithium niobate whispering gallery mode disk resonator with high Q factor. , 2017, , .		0
38	Effect of crystalline family and orientation on stimulated Brillouin scattering in whispering-gallery mode resonators. Optics Express, 2017, 25, 29934.	3.4	6
39	Laser-based optoelectronic generation of narrowband microwave chaos for radars and radio-communication scrambling. Optics Letters, 2017, 42, 3431.	3.3	17
40	Optimization of primary Kerr optical frequency combs for tunable microwave generation. Optics Letters, 2017, 42, 3522.	3.3	17
41	Nonlinear photonics with high-Q whispering-gallery-mode resonators. Advances in Optics and Photonics, 2017, 9, 828.	25.5	182
42	Perspectives on Microresonator Optical Frequency Combs. , 2017, , .		0
43	Universal nonlinear scattering in ultra-high Q whispering gallery-mode resonators. Optics Express, 2016, 24, 14880.	3.4	53
44	On the phase noise performance of microwave and millimeter-wave signals generated with versatile Kerr optical frequency combs. Optics Express, 2016, 24, 25043.	3.4	34
45	Kerr optical frequency combs: theory, applications and perspectives. Nanophotonics, 2016, 5, 214-230.	6.0	111
46	Breather and Pulse-Package Dynamics in Multinonlinear Electrooptical Systems With Delayed Feedback. IEEE Photonics Journal, 2016, 8, 1-8.	2.0	18
47	Phase-locking transition in Raman combs generated with whispering gallery mode resonators. Optics Letters, 2016, 41, 3718.	3.3	47
48	Ikeda-like chaos on a dynamically filtered supercontinuum light source. Physical Review A, 2016, 94, .	2.5	11
49	Ultra-high Q lithium niobate whispering-gallery-mode resonators. , 2016, , .		0
50	Quantum dynamics of Kerr optical frequency combs below and above threshold: Spontaneous four-wave mixing, entanglement, and squeezed states of light. Physical Review A, 2016, 93, .	2.5	78
51	On third-order nonlinear scattering in whispering gallery mode resonators. , 2016, , .		0
52	Effect of Time Delay on the Stability of Optoelectronic Oscillators Based on Whispering-Gallery Mode Resonators. IEEE Journal of Quantum Electronics, 2016, 52, 1-7.	1.9	6
53	Optimization of Close-In Phase Noise for Microwaves Generated With Kerr Combs Using Brillouin-Assisted Pump Depletion. IEEE Photonics Journal, 2016, 8, 1-7.	2.0	5
54	Quantum phenomena in ultra-highQwhispering gallery mode resonators and applications to quantum information systems. Proceedings of SPIE, 2016, , .	0.8	0

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55	Opto-acoustic phenomena in whispering gallery mode resonators. International Journal of Optomechatronics, 2016, 10, 32-39.	6.6	13
56	Multi-scale nonlinear effects in whispering-gallery mode resonators. , 2016, , .		0
57	The Simplest Laser-Based Optoelectronic Oscillator: An Experimental and Theoretical Study. Journal of Lightwave Technology, 2016, 34, 873-878.	4.6	22
58	WGM resonators as universal nonlinear scattering platforms. , 2016, , .		0
59	Optical Kerr frequency combs: Towards versatile spectral ranges and applications. , 2015, , .		2
60	Spatiotemporal dynamics of Kerr-Raman optical frequency combs. Physical Review A, 2015, 92, .	2.5	66
61	Mixed-mode oscillations in slow-fast delayed optoelectronic systems. Physical Review E, 2015, 91, 012902.	2.1	47
62	Optimally Coherent Kerr Combs Generated with Crystalline Whispering Gallery Mode Resonators for Ultrahigh Capacity Fiber Communications. Physical Review Letters, 2015, 114, 093902.	7.8	110
63	Kerr optical frequency comb generation in strontium fluoride whispering-gallery mode resonators with billion quality factor. Optics Letters, 2015, 40, 1567.	3.3	49
64	Analysis of Phase-Locking in Narrow-Band Optoelectronic Oscillators With Intermediate Frequency. IEEE Journal of Quantum Electronics, 2015, 51, 1-8.	1.9	28
65	Effect of Laser Coupling and Active Stabilization on the Phase Noise Performance of Optoelectronic Microwave Oscillators Based on Whispering-Gallery-Mode Resonators. IEEE Photonics Journal, 2015, 7, 1-11.	2.0	29
66	On the dispersion management of fluorite whispering-gallery mode resonators for Kerr optical frequency comb generation in the telecom and mid-infrared range. Optics Express, 2015, 23, 1594.	3.4	57
67	Phase Noise Performance of Optoelectronic Oscillators Based on Whispering-Gallery Mode Resonators. IEEE Journal of Quantum Electronics, 2015, 51, 1-8.	1.9	20
68	Giant thermo-optical relaxation oscillations in millimeter-size whispering gallery mode disk resonators. Optics Letters, 2015, 40, 3834.	3.3	53
69	Spectro-temporal dynamics of Kerr combs with parametric seeding. Applied Optics, 2015, 54, 2407.	1.8	19
70	Cascaded Brillouin lasing in monolithic barium fluoride whispering gallery mode resonators. Applied Physics Letters, 2014, 105, .	3.3	65
71	Theoretical and experimental study of slow-scale Hopf limit-cycles in laser-based wideband optoelectronic oscillators. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2310.	2.1	22
72	Phase noise performance comparison between optoelectronic oscillators based on optical delay lines and whispering gallery mode resonators. Optics Express, 2014, 22, 32158.	3.4	57

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73	Barium fluoride whispering-gallery-mode disk-resonator with one billion quality-factor. Optics Letters, 2014, 39, 6009.	3.3	63
74	Stability analysis of the spatiotemporal Lugiato-Lefever model for Kerr optical frequency combs in the anomalous and normal dispersion regimes. Physical Review A, 2014, 89, .	2.5	321
75	Optical Kerr frequency combs: Modelling and applications. , 2014, , .		0
76	Barium fluoride and lithium fluoride whispering-gallery-mode resonators for photonics applications. Optical Engineering, 2014, 53, 071821.	1.0	12
77	Wide-range tunability, thermal locking, and mode-crossing effects in Kerr optical frequency combs. Optical Engineering, 2014, 53, 122602.	1.0	10
78	Routes to spatiotemporal chaos in Kerr optical frequency combs. Chaos, 2014, 24, 013113.	2.5	49
79	Optical rogue waves in whispering-gallery-mode resonators. Physical Review A, 2014, 89, .	2.5	68
80	Nonlinear optical phenomena in whispering-gallery mode resonators and applications in aerospace and communication engineering. IEICE Proceeding Series, 2014, 1, 805-808.	0.0	0
81	Bifurcation analysis of Kerr optical frequency comb generation. IEICE Proceeding Series, 2014, 1, 779-782.	0.0	0
82	Time-Domain Dynamics and Stability Analysis of Optoelectronic Oscillators Based on Whispering-Gallery Mode Resonators. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 1-12.	2.9	44
83	Spatiotemporal Lugiato-Lefever formalism for Kerr-comb generation in whispering-gallery-mode resonators. Physical Review A, 2013, 87, .	2.5	361
84	Azimuthal Turing Patterns, Bright and Dark Cavity Solitons in Kerr Combs Generated With Whispering-Gallery-Mode Resonators. IEEE Photonics Journal, 2013, 5, 6100409-6100409.	2.0	127
85	Microwave Photonics Systems Based on Whispering-gallery-mode Resonators. Journal of Visualized Experiments, 2013, , .	0.3	20
86	Photonic Nonlinear Transient Computing with Multiple-Delay Wavelength Dynamics. Physical Review Letters, 2012, 108, 244101.	7.8	162
87	On the Phase Noise Performance of Nonlinear Double-Loop Optoelectronic Microwave Oscillators. IEEE Journal of Quantum Electronics, 2012, 48, 1415-1423.	1.9	44
88	Reply to â€œComment on â€˜Modal expansion approach to optical-frequency-comb generation with monolithic whispering-gallery-mode resonatorsâ€™ â€• Physical Review A, 2011, 84, .	2.5	0
89	Wideband chaos generation using a delayed oscillator and a two-dimensional nonlinearity induced by a quadrature phase-shift-keying electro-optic modulator. Optics Letters, 2011, 36, 2833.	3.3	20
90	Compact optoelectronic microwave oscillators using ultra-high Q whispering gallery mode disk-resonators and phase modulation. Optics Express, 2010, 18, 22358.	3.4	159

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91	On the generation of octave-spanning optical frequency combs using monolithic whispering-gallery-mode microresonators. Optics Letters, 2010, 35, 2696.	3.3	44
92	Contribution of Laser Frequency and Power Fluctuations to the Microwave Phase Noise of Optoelectronic Oscillators. Journal of Lightwave Technology, 2010, 28, 2730-2735.	4.6	85
93	Modal expansion approach to optical-frequency-comb generation with monolithic whispering-gallery-mode resonators. Physical Review A, 2010, 82, .	2.5	277
94	Spectrum and Dynamics of Optical Frequency Combs Generated with Monolithic Whispering Gallery Mode Resonators. Physical Review Letters, 2010, 104, 103902.	7.8	156