

Miro Erkintalo

List of Publications by Year in descending order

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153
papers

6,550
citations

71102

41
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62596

80
g-index

155
all docs

155
docs citations

155
times ranked

2718
citing authors

#	ARTICLE	IF	CITATIONS
1	Phase and intensity control of dissipative Kerr cavity solitons. Journal of the Royal Society of New Zealand, 2022, 52, 149-167.	1.9	17
2	Breathing dynamics of symmetry-broken temporal cavity solitons in Kerr ring resonators. Optics Letters, 2022, 47, 1486.	3.3	15
3	Soliton linear-wave scattering in a Kerr microresonator. Communications Physics, 2022, 5, .	5.3	13
4	Frequency comb generation in a pulse-pumped normal dispersion Kerr mini-resonator. Optics Letters, 2021, 46, 512.	3.3	29
5	Dissipative Polarization Domain Walls in a Passive Coherently Driven Kerr Resonator. Physical Review Letters, 2021, 126, 023904.	7.8	19
6	Spontaneous symmetry breaking of dissipative optical solitons in a two-component Kerr resonator. Nature Communications, 2021, 12, 4023.	12.8	48
7	Breathing Cavity Solitons and Polychromatic Dispersive Radiation in a Near-Zero Dispersion Kerr Resonator. , 2021, , .		0
8	Features of spontaneous symmetry breaking of dissipative cavity solitons in passive Kerr resonators. , 2021, , .		0
9	Nonlinear Localization of Dissipative Modulation Instability. Physical Review Letters, 2021, 127, 123901.	7.8	12
10	Universal flip-flopping and self-symmetrization of symmetry-breaking dynamics in passive Kerr resonators. , 2021, , .		0
11	Got the quantum jitters. Nature Physics, 2021, 17, 432-434.	16.7	0
12	Dual-microcomb generation in a synchronously driven waveguide ring resonator. Optics Letters, 2021, 46, 6002.	3.3	5
13	Observations of existence and instability dynamics of near-zero-dispersion temporal Kerr cavity solitons. Physical Review Research, 2021, 3, .	3.6	6
14	Optical Frequency Combs in Quadratically Nonlinear Resonators. Micromachines, 2020, 11, 230.	2.9	31
15	Asymmetric balance in symmetry breaking. Physical Review Research, 2020, 2, .	3.6	38
16	Spontaneous symmetry breaking of Kerr cavity solitons. , 2020, , .		1
17	Experimental observation of internally pumped parametric oscillation and quadratic comb generation in a \mathbb{Z}_2 whispering-gallery-mode microresonator. Optics Letters, 2020, 45, 1204.	3.3	31
18	Polarization modulation instability in a nonlinear fiber Kerr resonator. Optics Letters, 2020, 45, 5069.	3.3	12

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19	Harmonic and rational harmonic driving of microresonator soliton frequency combs. <i>Optica</i> , 2020, 7, 940.	9.3	21
20	Experimental observations of bright dissipative cavity solitons and their collapsed snaking in a Kerr resonator with normal dispersion driving. <i>Optica</i> , 2020, 7, 1195.	9.3	44
21	Experimental Observation of Internally-pumped Parametric Oscillation and Quadratic Comb Generation in a Lithium Niobate Microresonator. , 2020, , .		0
22	Manipulating dispersive waves in a normal dispersion fiber ring resonator driven by optical pulses. , 2020, , .		0
23	Adjustable repetition rate Kerr frequency combs in an integrated silica microring. , 2020, , .		0
24	Experimental observation of bright temporal cavity solitons enabled by third-order dispersion. , 2020, , .		0
25	Spontaneous polarization symmetry breaking of temporal cavity solitons in optical Kerr resonators. , 2020, , .		0
26	Octave-spanning tunable parametric oscillation in crystalline Kerr microresonators. <i>Nature Photonics</i> , 2019, 13, 701-706.	31.4	80
27	Coexistence and Interactions between Nonlinear States with Different Polarizations in a Monochromatically Driven Passive Kerr Resonator. <i>Physical Review Letters</i> , 2019, 123, 013902.	7.8	48
28	Wideband Tunability of Kerr Parametric Oscillation in an MgF2 Microresonator. , 2019, , .		0
29	Dynamics of Kerr-Like Optical Frequency Combs Generated via Phase-Mismatched Second-Harmonic Generation. , 2019, , .		0
30	Symmetry Breaking: Balancing Asymmetries. , 2019, , .		0
31	Experimental Observation of Chimera-Like States in a Passive Kerr Resonator. , 2019, , .		0
32	Experimental Observation of Coexisting Differently Polarized Cavity Solitons in a Monochromatically Driven Passive Kerr Resonator. , 2019, , .		0
33	Impact of desynchronization and drift on soliton-based Kerr frequency combs in the presence of pulsed driving fields. <i>Physical Review A</i> , 2019, 100, .	2.5	27
34	Coherent Continuous Wave Terahertz Spectroscopy Using Hilbert Transform. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2019, 40, 524-534.	2.2	23
35	Terahertz Frequency Domain Spectroscopy using Hilbert Transformation. , 2019, , .		0
36	Desynchronization of Pulsed Driving in the Formation of Soliton Kerr Frequency Combs. , 2019, , .		0

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37	Quadratic Optical Frequency Combs. , 2019, , .		0
38	Stimulated Raman Scattering Imposes Fundamental Limits to the Duration and Bandwidth of Temporal Cavity Solitons. Physical Review Letters, 2018, 120, 053902.	7.8	46
39	Micro-combs: A novel generation of optical sources. Physics Reports, 2018, 729, 1-81.	25.6	448
40	Large net-normal dispersion Er-doped fibre laser mode-locked with a nonlinear amplifying loop mirror. Optics Communications, 2018, 410, 447-451.	2.1	15
41	Invited Article: Emission of intense resonant radiation by dispersion-managed Kerr cavity solitons. APL Photonics, 2018, 3, 120804.	5.7	29
42	And then there were three. Nature Photonics, 2018, 12, 645-647.	31.4	0
43	Origins of clustered frequency combs in Kerr microresonators. Optics Letters, 2018, 43, 4180.	3.3	12
44	Experimental observations of breathing Kerr temporal cavity solitons at large detunings. Optics Letters, 2018, 43, 3674.	3.3	9
45	Spontaneous symmetry breaking and trapping of temporal Kerr cavity solitons by pulsed or amplitude-modulated driving fields. Physical Review A, 2018, 97, .	2.5	44
46	Flip-Flop Polarization Domain Walls in a Kerr Resonator. , 2018, , .		1
47	Addressing temporal Kerr cavity solitons with a single pulse of intensity modulation. Optics Letters, 2018, 43, 3192.	3.3	23
48	Observation of super cavity solitons. , 2018, , .		0
49	Kerr-microresonator solitons from a chirped background. Optica, 2018, 5, 1304.	9.3	52
50	Programmable Repetition Rate Optical Source Based on Fiber Cavity Solitons. , 2018, , .		0
51	Atypical Trapping of Cavity Solitons in Kerr Resonators Driven with Optical Pulses. , 2018, , .		0
52	Strong resonant radiation limits Kerr cavity soliton existence in longitudinally modulated resonators. , 2018, , .		0
53	Frequency comb generation in a continuously pumped optical parametric oscillator. , 2018, , .		0
54	Second-harmonic-assisted four-wave mixing in chip-based microresonator frequency comb generation. Light: Science and Applications, 2017, 6, e16253-e16253.	16.6	83

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55	Nonlinear dynamics of optical frequency combs. , 2017, , .		0
56	Experimental and numerical investigations of switching wave dynamics in a normally dispersive fibre ring resonator. European Physical Journal D, 2017, 71, 1.	1.3	33
57	Coexistence of Multiple Nonlinear States in a Tristable Passive Kerr Resonator. Physical Review X, 2017, 7, .	8.9	36
58	Universal mechanism for the binding of temporal cavity solitons. Optica, 2017, 4, 855.	9.3	104
59	Widely tunable optical parametric oscillation in a Kerr microresonator. Optics Letters, 2017, 42, 5190.	3.3	31
60	Observations of spatiotemporal instabilities of temporal cavity solitons. Optica, 2016, 3, 1071.	9.3	67
61	Mode-locked Yb-doped fiber laser emitting broadband pulses at ultralow repetition rates. Optics Letters, 2016, 41, 5270.	3.3	22
62	All-optical buffer based on temporal cavity solitons operating at 10 ¹⁰ Hz. Optics Letters, 2016, 41, 4526.	3.3	36
63	Single envelope equation modeling of multi-octave comb arrays in microresonators with quadratic and cubic nonlinearities. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 1207.	2.1	33
64	Roadmap on optical rogue waves and extreme events. Journal of Optics (United Kingdom), 2016, 18, 063001.	2.2	225
65	Theory of quadratic optical frequency combs. , 2016, , .		0
66	Frequency-comb formation in doubly resonant second-harmonic generation. Physical Review A, 2016, 93, .	2.5	67
67	Walk-Off-Induced Modulation Instability, Temporal Pattern Formation, and Frequency Comb Generation in Cavity-Enhanced Second-Harmonic Generation. Physical Review Letters, 2016, 116, 033901.	7.8	100
68	Controlled merging and annihilation of localised dissipative structures in an AC-driven damped nonlinear Schrödinger system. New Journal of Physics, 2016, 18, 033034.	2.9	27
69	Measurement of microresonator frequency comb coherence by spectral interferometry. Optics Letters, 2016, 41, 277.	3.3	16
70	Dynamics of soliton explosions in passively mode-locked fiber lasers. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 46.	2.1	55
71	Real Time Observations of Soliton Bound States, with Multiple Binding Mechanisms, in Passive Nonlinear Cavities. , 2016, , .		2
72	Theory of Frequency Comb Generation in Cavity Enhanced Second Harmonic Generation. , 2016, , .		1

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73	Writing and Erasure of Temporal Cavity Solitons via Intensity Modulation of the Cavity Driving Field. , 2016, , .		1
74	Experimental observation of coherent cavity soliton frequency combs in silica microspheres. Optics Letters, 2016, 41, 4613.	3.3	66
75	Cavity soliton frequency comb generation in silica microspheres. , 2016, , .		0
76	Controlled Collisions of Dissipative Solitons. , 2016, , .		0
77	Observation of Spatiotemporal Chaos Induced by a Cavity Soliton in a Fiber Ring Resonator. , 2016, , .		0
78	Frequency combs in quadratically nonlinear resonators. , 2016, , .		0
79	Measurement of the Raman Self-Frequency Shift of a Temporal Cavity Soliton. , 2016, , .		3
80	Coexistence of Distinct Cavity Solitons States in a Tri-stable Passive Kerr Resonator. , 2016, , .		0
81	A Giant Chirp Oscillator at Ultra-low Repetition Rates. , 2016, , .		0
82	Observations of Complex Spatiotemporal Instabilities in a Fiber Ring Resonator. , 2016, , .		0
83	Cherenkov-radiation-induced binding of temporal cavity solitons observed in a passive fiber ring resonator. , 2016, , .		0
84	Measuring the Degree of Coherence of Microresonator Frequency Combs. , 2016, , .		0
85	Writing and erasing of temporal cavity solitons by direct phase modulation of the cavity driving field. Optics Letters, 2015, 40, 4755.	3.3	49
86	Bunching of temporal cavity solitons via forward Brillouin scattering. New Journal of Physics, 2015, 17, 115009.	2.9	17
87	Emergent rogue wave structures and statistics in spontaneous modulation instability. Scientific Reports, 2015, 5, 10380.	3.3	93
88	Temporal Cavity Solitons: From Fiber Resonators to Microresonators. , 2015, , .		0
89	Existence and dynamics of pairs of temporal cavity solitons weakly-bound through kelly sidebands in a passive optical fiber resonator. , 2015, , .		0
90	Temporal tweezing of light through the trapping and manipulation of temporal cavity solitons. Nature Communications, 2015, 6, 7370.	12.8	141

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91	Observation of soliton explosions in a passively mode-locked fiber laser. <i>Optica</i> , 2015, 2, 36.	9.3	352
92	Spontaneous creation and annihilation of temporal cavity solitons in a coherently driven passive fiber resonator. <i>Optics Letters</i> , 2015, 40, 3735.	3.3	44
93	Resonant radiation in synchronously pumped passive Kerr cavities. <i>Optics Letters</i> , 2015, 40, 427.	3.3	21
94	Dynamics of Rogue Wave and Soliton Emergence in Spontaneous Modulation Instability. , 2015, , .		0
95	Predicting the unpredictable?. <i>Nature Photonics</i> , 2015, 9, 560-562.	31.4	9
96	Environment, Wildlife and LED Illumination. <i>Optics and Photonics News</i> , 2015, 26, 42.	0.5	3
97	Creation and Annihilation Dynamics of Temporal Cavity Solitons. , 2015, , .		0
98	Temporal cavity solitons: from all-optical memories to microresonator frequency combs. , 2015, , .		0
99	Efficiency of dispersive wave generation from a dual-frequency beat signal. <i>Optics Letters</i> , 2014, 39, 5850.	3.3	10
100	Dynamics and statistics of noise-like pulses and Rogue Waves. , 2014, , .		1
101	Transient Dynamics of Cavity Soliton Merging. , 2014, , .		1
102	Raman rogue waves in a long cavity passively mode-locked fiber laser. , 2014, , .		0
103	Complete control of temporal cavity solitons. , 2014, , .		1
104	Mean-field Numerical Modelling of Microresonator Frequency Combs. , 2014, , .		0
105	Bound states of temporal cavity solitons. , 2014, , .		0
106	Observation of dispersive wave emission by temporal cavity solitons. <i>Optics Letters</i> , 2014, 39, 5503.	3.3	81
107	Raman rogue waves in a partially mode-locked fiber laser. <i>Optics Letters</i> , 2014, 39, 319.	3.3	148
108	Coherence properties of Kerr frequency combs. <i>Optics Letters</i> , 2014, 39, 283.	3.3	79

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109	Instabilities, breathers and rogue waves in optics. Nature Photonics, 2014, 8, 755-764.	31.4	739
110	All-normal dispersion fiber lasers mode-locked with a nonlinear amplifying loop mirror. Optical Fiber Technology, 2014, 20, 657-665.	2.7	74
111	Nonlinear optics of fibre event horizons. Nature Communications, 2014, 5, 4969.	12.8	91
112	Coherence properties of optical frequency combs generated in Kerr microresonators. , 2014, , .		0
113	Temporal tweezing of light. , 2014, , .		0
114	Observation of dispersive wave emission by temporal cavity solitons. , 2014, , .		1
115	Ultraweak long-range interactions of solitons observed over astronomical distances. Nature Photonics, 2013, 7, 657-663.	31.4	183
116	120 fs, 4.2 nJ pulses from an all-normal-dispersion, polarization-maintaining, fiber laser. Applied Physics Letters, 2013, 103, 121111.	3.3	91
117	Suppression of temporal cavity soliton interactions by phase modulation of the driving beam. , 2013, , .		0
118	Universal scaling laws of Kerr frequency combs. Optics Letters, 2013, 38, 1790.	3.3	250
119	Raman-driven destabilization of mode-locked long cavity fiber lasers: fundamental limitations to energy scalability. Optics Letters, 2013, 38, 2644.	3.3	77
120	Ultraweak Soliton Interactions. Optics and Photonics News, 2013, 24, 49.	0.5	0
121	Coherence and shot-to-shot spectral fluctuations in noise-like ultrafast fiber lasers. Optics Letters, 2013, 38, 4327.	3.3	185
122	Modeling of octave-spanning Kerr frequency combs using a generalized mean-field Lugiato-Lefever model. Optics Letters, 2013, 38, 37.	3.3	505
123	Pushing the limits of environmentally stable fibre lasers: 120 fs, 4.2 nJ, all-PM all-fibre. , 2013, , .		0
124	Ultra-weak acoustic interactions of temporal cavity solitons. , 2013, , .		0
125	Raman-driven destabilization of giant-chirp oscillators: Fundamental limitations to energy scalability. , 2013, , .		0
126	Observation of dispersive-wave emission by temporal cavity solitons. , 2013, , .		0

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127	Steady-state and instabilities of octave-spanning Kerr frequency combs modeled using a generalized Lugiato-Lefever equation. , 2013, , .		0
128	Generalized dispersive wave emission in nonlinear fiber optics. Optics Letters, 2013, 38, 151.	3.3	81
129	Cascaded Bragg scattering in fiber optics. Optics Letters, 2013, 38, 142.	3.3	14
130	Mode-locked femtosecond all-normal all-PM Yb-doped fiber laser using a nonlinear amplifying loop mirror. Optics Express, 2012, 20, 10545.	3.4	155
131	Environmentally stable all-PM all-fiber giant chirp oscillator. Optics Express, 2012, 20, 22669.	3.4	110
132	Coherent-mode representation of supercontinuum. Optics Letters, 2012, 37, 169.	3.3	29
133	Fission of solitons in continuous-wave supercontinuum. Optics Letters, 2012, 37, 5217.	3.3	14
134	On the phase-dependent manifestation of optical rogue waves. Nonlinearity, 2012, 25, R73-R83.	1.4	33
135	Mode-locked femtosecond all PM Yb fiber laser delivering linearly chirped pulses. Proceedings of SPIE, 2012, , .	0.8	0
136	Cascaded Phase Matching and Nonlinear Symmetry Breaking in Fiber Frequency Combs. Physical Review Letters, 2012, 109, 223904.	7.8	113
137	Optical rogue waves and localized structures in nonlinear fiber optics. , 2011, , .		0
138	Higher-Order Modulation Instability in Nonlinear Fiber Optics. Physical Review Letters, 2011, 107, 253901.	7.8	182
139	Pump-soliton nonlinear wave mixing in noise-driven fiber supercontinuum generation. Optics Letters, 2011, 36, 3870.	3.3	5
140	Rediscovered dynamics of nonlinear fiber optics: from breathers to extreme localisation. , 2011, , .		0
141	Akhmediev breather evolution in optical fiber for realistic initial conditions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2029-2034.	2.1	64
142	Akhmediev breathers and pulsed modulation instability. , 2011, , .		0
143	Failure of the linear Raman gain approximation in supercontinuum generation. , 2011, , .		0
144	Failure and limitations of linear Raman gain approximation for fiber supercontinuum generation modelling. Proceedings of SPIE, 2011, , .	0.8	0

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145	Frequencydoubling and recurrence phenomena in Akhmediev breathers pulse trains. , 2011, , .		0
146	Unambiguous Probe of Surface Chirality Based on Focused Circularly-polarized Light. , 2010, , .		0
147	Optical rogue waves and soliton collisions. , 2010, , .		0
148	Absolute Probe of Surface Chirality Based on Focused Circularly Polarized Light. Journal of Physical Chemistry Letters, 2010, 1, 1826-1829.	4.6	19
149	Experimental signatures of dispersive waves emitted during soliton collisions. Optics Express, 2010, 18, 13379.	3.4	34
150	Limitations of the linear Raman gain approximation in modeling broadband nonlinear propagation in optical fibers. Optics Express, 2010, 18, 25449.	3.4	23
151	Giant dispersive wave generation through soliton collision. Optics Letters, 2010, 35, 658.	3.3	55
152	Absolute nonlinear optical probes of surface chirality. Journal of Optics, 2009, 11, 034006.	1.5	29
153	Rogue-wave-like characteristics in femtosecond supercontinuum generation. Optics Letters, 2009, 34, 2468.	3.3	134