

Marc Haelterman

List of Publications by Year in descending order

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61
papers

2,801
citations

279798

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44
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61
all docs

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docs citations

61
times ranked

1428
citing authors

#	ARTICLE	IF	CITATIONS
1	Temporal cavity solitons in one-dimensional Kerr media as bits in an all-optical buffer. <i>Nature Photonics</i> , 2010, 4, 471-476.	31.4	609
2	All-optical reservoir computing. <i>Optics Express</i> , 2012, 20, 22783.	3.4	340
3	Dynamics of one-dimensional Kerr cavity solitons. <i>Optics Express</i> , 2013, 21, 9180.	3.4	189
4	High-performance photonic reservoir computer based on a coherently driven passive cavity. <i>Optica</i> , 2015, 2, 438.	9.3	182
5	Fully analogue photonic reservoir computer. <i>Scientific Reports</i> , 2016, 6, 22381.	3.3	133
6	All-optical reservoir computer based on saturation of absorption. <i>Optics Express</i> , 2014, 22, 10868.	3.4	132
7	Stable topological spatial solitons in optical parametric oscillators. <i>Optics Letters</i> , 1997, 22, 970.	3.3	112
8	Continuous-wave ultrahigh-repetition-rate pulse-train generation through modulational instability in a passive fiber cavity. <i>Optics Letters</i> , 2001, 26, 39.	3.3	110
9	Simulations and experiments on self-focusing conditions in nematic liquid-crystal planar cells. <i>Optics Express</i> , 2004, 12, 1011.	3.4	110
10	Measurement of the self-induced waveguide of a solitonlike optical beam in a nematic liquid crystal. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2005, 22, 1424.	2.1	95
11	Parametric Three-Wave Soliton Generated from Incoherent Light. <i>Physical Review Letters</i> , 2001, 86, 2010-2013.	7.8	88
12	Online Training of an Opto-Electronic Reservoir Computer Applied to Real-Time Channel Equalization. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2017, 28, 2686-2698.	11.3	59
13	Nonlinear Symmetry Breaking Induced by Third-Order Dispersion in Optical Fiber Cavities. <i>Physical Review Letters</i> , 2013, 110, 104103.	7.8	50
14	Brain-Inspired Photonic Signal Processor for Generating Periodic Patterns and Emulating Chaotic Systems. <i>Physical Review Applied</i> , 2017, 7, .	3.8	47
15	Solitons of singly resonant optical parametric oscillators. <i>Optics Letters</i> , 1999, 24, 400.	3.3	45
16	Incoherent Solitons in Instantaneous Response Nonlinear Media. <i>Physical Review Letters</i> , 2004, 92, 143906.	7.8	45
17	Coherence properties of the parametric three-wave interaction driven from an incoherent pump. <i>Physical Review E</i> , 2002, 66, 056605.	2.1	39
18	Competition between modulational instability and switching in optical bistability. <i>Optics Letters</i> , 1999, 24, 80.	3.3	36

#	ARTICLE	IF	CITATIONS
19	Spontaneous formation of symbiotic solitary waves in a backward quasi-phase-matched parametric oscillator. <i>Optics Letters</i> , 1998, 23, 1808.	3.3	32
20	Excitation and bistability of self-trapped signal beams in optical parametric oscillators. <i>Optics Letters</i> , 1998, 23, 1514.	3.3	31
21	Hidden Coherence Along Space-Time Trajectories in Parametric Wave Mixing. <i>Physical Review Letters</i> , 2002, 88, 083901.	7.8	30
22	Condensation in Hamiltonian Parametric Wave Interaction. <i>Physical Review Letters</i> , 2004, 92, 103901.	7.8	29
23	Influence of walk-off, dispersion, and diffraction on the coherence of parametric fluorescence. <i>Physical Review E</i> , 2001, 63, 056611.	2.1	23
24	Embodiment of Learning in Electro-Optical Signal Processors. <i>Physical Review Letters</i> , 2016, 117, 128301.	7.8	22
25	Simulation of 2-D lateral light propagation in nematic-liquid-crystal cells with tilted molecules and nonlinear reorientational effect. <i>Optical and Quantum Electronics</i> , 2005, 37, 95-106.	3.3	20
26	Towards pattern generation and chaotic series prediction with photonic reservoir computers. <i>Proceedings of SPIE</i> , 2016, , .	0.8	16
27	Curvature dynamics and stability of topological solitons in the optical parametric oscillator. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1999, 16, 1936.	2.1	15
28	Dispersion-Induced Dynamical Transition in Parametric Solitary Waves. <i>Physical Review Letters</i> , 2000, 84, 5760-5763.	7.8	14
29	Switching and intrinsic position bistability of soliton beams in chiral nematic liquid crystals. <i>Physical Review A</i> , 2011, 83, .	2.5	14
30	Countering spatial soliton breakdown in nematic liquid crystals. <i>Optics Letters</i> , 2009, 34, 1900.	3.3	13
31	Optical bistability and temporal symmetry-breaking instability in nonlinear fiber resonators. <i>Fiber and Integrated Optics</i> , 1995, 14, 337-346.	2.5	11
32	Online Training for High-Performance Analogue Readout Layers in Photonic Reservoir Computers. <i>Cognitive Computation</i> , 2017, 9, 297-306.	5.2	11
33	Photonic reservoir computer based on frequency multiplexing. <i>Optics Letters</i> , 2022, 47, 782.	3.3	11
34	Reservoir computing: a photonic neural network for information processing. <i>Proceedings of SPIE</i> , 2010, , .	0.8	10
35	Passive fiber ring flip-flop memory based on polarization dynamics. <i>Optics Communications</i> , 1997, 137, 427-436.	2.1	8
36	Hybrid solitary waves in quadratic nonlinear media. <i>Physical Review E</i> , 1999, 59, 3749-3752.	2.1	8

#	ARTICLE	IF	CITATIONS
37	Online Training of an Opto-Electronic Reservoir Computer. Lecture Notes in Computer Science, 2015, , 233-240.	1.3	8
38	Towards high-performance spatially parallel optical reservoir computing. , 2018, , .		6
39	Autonomous all-photonics processor based on reservoir computing paradigm. , 2016, , .		6
40	Impact of third-order dispersion on nonlinear bifurcations in optical resonators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 1934-1937.	2.1	5
41	Fast self-pulsing through nonlinear incoherent feedback. Optics Letters, 2006, 31, 495.	3.3	4
42	Parametric Solitons in Passive Structures with Feedback. Springer Series in Optical Sciences, 2001, , 359-393.	0.7	4
43	Virtual Optical Reservoir Computing. , 2014, , .		4
44	Towards Adjustable Signal Generation with Photonic Reservoir Computers. Lecture Notes in Computer Science, 2016, , 374-381.	1.3	3
45	Pattern and Frequency Generation Using an Opto-Electronic Reservoir Computer with Output Feedback. Lecture Notes in Computer Science, 2016, , 318-325.	1.3	3
46	Random Pattern and Frequency Generation Using a Photonic Reservoir Computer with Output Feedback. Neural Processing Letters, 2018, 47, 1041-1054.	3.2	3
47	Information processing using an autonomous all-photonics reservoir computer based on coherently driven passive cavities. , 2015, , .		3
48	Towards integrated parallel photonic reservoir computing based on frequency multiplexing. , 2018, , .		3
49	Nonlinear wave guiding in nematic liquid crystals. , 2007, , .		2
50	Autonomous bio-inspired photonic processor based on reservoir computing paradigm. , 2016, , .		2
51	Towards autonomous photonic reservoir computer based on frequency parallelism of neurons. , 2017, , .		2
52	Photonic reservoir computer with output feedback for chaotic time series prediction. , 2017, , .		2
53	Role of topological phase-defects in the parametric generation process. Optics Communications, 2008, 281, 3196-3200.	2.1	1
54	Cavity soliton oscillations in a one-dimensional fiber resonator. , 2012, , .		1

#	ARTICLE	IF	CITATIONS
55	Incoherent solitons generated in instantaneous response nonlinear Kerr media. , 2004, , WA3.		0
56	Instability Dynamics of a Double-Pass Cavity with Nonlinear Feedback. , 2006, , .		0
57	Propagation of nematicons in unbiased configurations: spiraling solitons. Proceedings of SPIE, 2010, , .	0.8	0
58	Condensation in parametric wave interaction. , 2004, , .		0
59	Experimental Generation of 1.6-THz repetition-rate pulse-trains in a Passive Optical Fiber Resonator. , 2009, , .		0
60	Experimental Observation of the 1D Kerr-type Cavity Soliton in a Passive Optical Fiber Resonator. , 2009, , .		0
61	Transition towards dynamical parametric solitary waves. , 1999, , .		0