

Philippe Grelu

List of Publications by Year in descending order

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153
papers

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citations

46984

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89
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165
all docs

165
docs citations

165
times ranked

2571
citing authors

#	ARTICLE	IF	CITATIONS
1	On-demand generation of soliton molecules through evolutionary algorithm optimization. Optics Letters, 2022, 47, 134.	1.7	14
2	General rogue wave solutions under SU(2) transformation in the vector Chen–Lee–Liu nonlinear Schrödinger equation. Physica D: Nonlinear Phenomena, 2022, 434, 133204.	1.3	8
3	Superlocalization Reveals Long-Range Synchronization of Vibrating Soliton Molecules. Physical Review Letters, 2022, 128, .	2.9	12
4	Autosetting Mode-locked Laser with Genetic Algorithm Optimization and Advanced Intracavity Controls. , 2021, , .		0
5	Omnipresent coexistence of rogue waves in a nonlinear two-wave interference system and its explanation by modulation instability. Physical Review Research, 2021, 3, .	1.3	14
6	Smart lasers tame complex spatiotemporal cavity dynamics. Light: Science and Applications, 2020, 9, 188.	7.7	1
7	Fundamental Peregrine Solitons of Ultrastrong Amplitude Enhancement through Self-Steepening in Vector Nonlinear Systems. Physical Review Letters, 2020, 124, 113901.	2.9	34
8	Saturable plasmonic metasurfaces for laser mode locking. Light: Science and Applications, 2020, 9, 50.	7.7	50
9	Buildup of incoherent dissipative solitons in ultrafast fiber lasers. Physical Review Research, 2020, 2, .	1.3	24
10	Autosetting Mode-Locked Laser Using an Evolutionary Algorithm and Time-Stretch Spectral Characterization. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-8.	1.9	14
11	Long-range synchronization of soliton molecules in fiber ring laser cavity. , 2020, , .		0
12	General rogue wave solutions of the coupled Fokas–Lenells equations and non-recursive Darboux transformation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180806.	1.0	24
13	Optical soliton molecular complexes in a passively mode-locked fibre laser. Nature Communications, 2019, 10, 830.	5.8	192
14	Buildup of Noise-Like Pulses in Ultrafast Fiber Lasers. , 2019, , .		0
15	Multimode nonlinear fiber optics, a spatiotemporal avenue. APL Photonics, 2019, 4, .	3.0	142
16	Pattern formation in 2-1/4m Tm Mamiychev oscillators associated with the dissipative Faraday instability. Photonics Research, 2019, 7, 1287.	3.4	20
17	Impact of Raman scattering on pulse dynamics in a fiber laser with narrow gain bandwidth. Journal of Optics (United Kingdom), 2018, 20, 065502.	1.0	2
18	Multistability and switching in oppositely-directed saturated coupler. Optics Communications, 2018, 416, 145-151.	1.0	8

#	ARTICLE	IF	CITATIONS
19	Bidirectional Soliton Rain Dynamics Induced by Casimir-Like Interactions in a Graphene Mode-Locked Fiber Laser. <i>Physical Review Letters</i> , 2018, 121, 133902.	2.9	94
20	Peregrine Solitons Beyond the Threefold Limit and Their Two-Soliton Interactions. <i>Physical Review Letters</i> , 2018, 121, 104101.	2.9	55
21	Buildup of incoherent laser pulses resolved by real-time spectral imaging. , 2018, , .		0
22	Real-time characterization of optical soliton molecule dynamics in an ultrafast thulium fiber laser. <i>Optics Letters</i> , 2018, 43, 4965.	1.7	51
23	Bistability in oppositely directed coupler with negative index material channel. , 2018, , .		0
24	Optical Peregrine Rogue Waves in Self-Induced Transparent Media. , 2018, , .		0
25	Dark spatial solitary waves in a cubic-quintic-septimal nonlinear medium. <i>Physical Review A</i> , 2017, 95, .	1.0	19
26	Subsideband Generation Associated with Period-N Pulsations in Tm Soliton Fiber Lasers. <i>IEEE Photonics Journal</i> , 2017, 9, 1-8.	1.0	10
27	Versatile rogue waves in scalar, vector, and multidimensional nonlinear systems. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 463001.	0.7	170
28	Real-Time Observation of Internal Motion within Ultrafast Dissipative Optical Soliton Molecules. <i>Physical Review Letters</i> , 2017, 118, 243901.	2.9	341
29	Optical Peregrine rogue waves of self-induced transparency in a resonant erbium-doped fiber. <i>Optics Express</i> , 2017, 25, 29687.	1.7	23
30	Vector dynamics of incoherent dissipative optical solitons. <i>Optica</i> , 2017, 4, 1239.	4.8	82
31	Spatial modulation instability of coupled surface plasmon polaritons in a dielectricâ€metalâ€dielectric structure. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017, 34, 198.	0.9	10
32	Temperature tunable supercontinuum spectrum in visible region using water-core PCF. , 2016, , .		0
33	Few-cycle solitons in supercontinuum generation dynamics. <i>European Physical Journal: Special Topics</i> , 2016, 225, 2435-2451.	1.2	4
34	Strength and weaknesses of modeling the dynamics of mode-locked lasers by means of collective coordinates. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 075501.	1.0	6
35	Toward an autosetting mode-locked fiber laser cavity. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2016, 33, 825.	0.9	55
36	Generation of wavelength-tunable soliton molecules in a 2- $\hat{1}$ / ₄ m ultrafast all-fiber laser based on nonlinear polarization evolution. <i>Optics Letters</i> , 2016, 41, 2254.	1.7	75

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37	Roadmap on optical rogue waves and extreme events. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 063001.	1.0	225
38	Adjustable high-repetition-rate pulse trains in a passively-mode-locked fiber laser. <i>Physical Review A</i> , 2016, 94, .	1.0	24
39	Rogue-wave bullets in a composite (2+1)D nonlinear medium. <i>Optics Express</i> , 2016, 24, 15251.	1.7	40
40	Chirped Peregrine solitons in a class of cubic-quintic nonlinear Schrödinger equations. <i>Physical Review E</i> , 2016, 93, 062202.	0.8	41
41	Chirped soliton solutions for the generalized nonlinear Schrödinger equation with polynomial nonlinearity and non-Kerr terms of arbitrary order. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 075504.	1.0	46
42	Complementary optical rogue waves in parametric three-wave mixing. <i>Optics Express</i> , 2016, 24, 5886.	1.7	21
43	Effect of Temperature on Supercontinuum Generation in Water-Core Photonic Crystal Fiber. <i>IEEE Photonics Technology Letters</i> , 2016, 28, 1209-1212.	1.3	7
44	Influence of geometrical asymmetry on logical output of a triple core PCF. , 2016, , .		0
45	Optical rogue waves in parametric three-wave mixing and coherent stimulated scattering. <i>Physical Review A</i> , 2015, 92, .	1.0	36
46	An all-optical NOT logic operation based on a chloroform filled geometrically asymmetric triangular triple-core PCF. , 2015, , .		1
47	Watch-hand-like optical rogue waves in three-wave interactions. <i>Optics Express</i> , 2015, 23, 349.	1.7	36
48	Baseband modulation instability as the origin of rogue waves. <i>Physical Review A</i> , 2015, 91, .	1.0	150
49	Fiber laser mode locked through an evolutionary algorithm. <i>Optica</i> , 2015, 2, 275.	4.8	96
50	Impact of structural asymmetry on the efficiency of triple-core photonic crystal fiber for all-optical logic operation. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2015, 32, 1920.	0.9	11
51	Dipole soliton solution for the homogeneous high-order nonlinear Schrödinger equation with cubic-quintic-septic non-Kerr terms. <i>Applied Mathematical Modelling</i> , 2015, 39, 1300-1307.	2.2	30
52	Dark-and-bright rogue waves in long wave-short wave resonance. , 2014, , .		0
53	Dissipative shock waves in all-normal-dispersion mode-locked fiber lasers. <i>Optics Letters</i> , 2014, 39, 263.	1.7	21
54	Dark three-sister rogue waves in normally dispersive optical fibers with random birefringence. <i>Optics Express</i> , 2014, 22, 27632.	1.7	52

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55	Models for supercontinuum generation beyond the slowly-varying-envelope approximation. <i>Physical Review A</i> , 2014, 90, .	1.0	23
56	Rogue wave statistics from a noise-like-pulse laser. , 2014, , .		1
57	Rains of solitons in a figure-of-eight passively mode-locked fiber laser. <i>Applied Physics B: Lasers and Optics</i> , 2014, 116, 771-775.	1.1	52
58	Dark- and bright-rogue-wave solutions for media with long-waveâ€“short-wave resonance. <i>Physical Review E</i> , 2014, 89, 011201.	0.8	80
59	Manipulating dissipative soliton ensembles in passively mode-locked fiber lasers. <i>Optical Fiber Technology</i> , 2014, 20, 562-574.	1.4	33
60	Coexisting rogue waves within the (2+1)-component long-waveâ€“short-wave resonance. <i>Physical Review E</i> , 2014, 90, 033203.	0.8	54
61	Dynamics of the transition from polarization disorder to antiphase polarization domains in vector fiber lasers. <i>Physical Review A</i> , 2014, 89, .	1.0	30
62	Rogue waves among noiselike-pulse laser emission: An experimental investigation. <i>Physical Review A</i> , 2014, 90, .	1.0	125
63	Transition from Polarization Disorder to Antiphase Polarization Domains in a Fiber Laser. , 2014, , .		1
64	Collective coordinate approach for the dynamics of light pulses in fiber ring lasers. , 2014, , .		1
65	Statistical description of soliton clustering in fiber lasers with slow-gain dynamics. , 2014, , .		0
66	Multipole solitary wave solutions of the higher-order nonlinear SchrÃ¶dinger equation with quintic non-Kerr terms. <i>Optics Communications</i> , 2013, 309, 71-79.	1.0	34
67	Polarization-domain-wall complexes in fiber lasers. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 211.	0.9	35
68	Multi-gigahertz repetition-rate-selectable passive harmonic mode locking of a fiber laser. <i>Optics Express</i> , 2013, 21, 10897.	1.7	95
69	Cross-phase modulational instability induced by Raman scattering in highly birefringent fiber. <i>Optics Letters</i> , 2013, 38, 5327.	1.7	6
70	Dissipative rogue wave generation in multiple-pulsing mode-locked fiber laser. <i>Journal of Optics (United Kingdom)</i> , 2013, 15, 064005.	1.0	46
71	Dissipative rogue waves through multi-pulse collisions in a fiber laser. , 2013, , .		0
72	Ultra-high repetition-rate-selectable passive harmonic mode locking of a fiber laser. , 2013, , .		0

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73	Polarization-domain-wall complexes in fiber lasers. , 2013, , .		0
74	Dissipative Solitons, a Novel Paradigm for Mode-locked Lasers. , 2013, , .		1
75	Impact of slow gain dynamics on soliton molecules in mode-locked fiber lasers. Optics Letters, 2012, 37, 175.	1.7	38
76	High-Energy Passive Mode-Locking of Fiber Lasers. International Journal of Optics, 2012, 2012, 1-17.	0.6	38
77	Dissipative solitons for mode-locked lasers. Nature Photonics, 2012, 6, 84-92.	15.6	1,362
78	Dissipative Rogue Waves Generated by Chaotic Pulse Bunching in a Mode-Locked Laser. Physical Review Letters, 2012, 108, 233901.	2.9	368
79	Third-harmonic generation in optical microfibers: From silica experiments to highly nonlinear glass prospects. Optics Communications, 2012, 285, 3493-3497.	1.0	38
80	Noise-like pulses generated at high harmonics in a partially-mode-locked km-long Raman fiber laser. Applied Physics B: Lasers and Optics, 2012, 106, 283-287.	1.1	48
81	Effect of Slow Gain Dynamics in Mode-Locked Fiber Lasers: Chirped Soliton Molecules. , 2012, , .		0
82	Dissipative rogue wave generation from a mode-locked fiber laser experiment. , 2012, , .		0
83	Dissipative rogue waves: Extreme pulses generated by passively mode-locked lasers. Physical Review E, 2011, 84, 016604.	0.8	168
84	Optical spectra beyond the amplifier bandwidth limitation in dispersion-managed mode-locked fiber lasers. Optics Express, 2011, 19, 2959.	1.7	22
85	Dissipative soliton resonance in a passively mode-locked fiber laser. Optics Letters, 2011, 36, 1146.	1.7	91
86	Universal soliton pattern formations in passively mode-locked fiber lasers. Optics Letters, 2011, 36, 1545.	1.7	95
87	Generating ultra-short high-energy pulses using dissipative soliton resonance: Pulse compression schemes. , 2011, , .		3
88	High-harmonic km-long self-pulsed Raman fiber laser. , 2011, , .		0
89	Near-field control of optical bistability in a nanocavity. , 2011, , .		0
90	Near-field characterization of glass microfibers on a low-index substrate. Applied Physics B: Lasers and Optics, 2010, 101, 291-295.	1.1	19

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91	Soliton rains in a fiber laser: An experimental study. Physical Review A, 2010, 81, .	1.0	236
92	Potentialities of glass air-clad micro- and nanofibers for nonlinear optics. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 394.	0.9	23
93	Dissipative soliton resonance as a guideline for high-energy pulse laser oscillators. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 2336.	0.9	137
94	Potentialities of microfibers for non linear optics. , 2010, , .		0
95	Dissipative solitons for mode-locked fiber lasers. , 2010, , .		1
96	Near-field control of optical bistability in a nanocavity. , 2009, , .		2
97	Sub-nanosecond nonlinear pulse shaping in microfiber resonators. , 2009, , .		0
98	Pulsating dissipative light bullets. , 2009, , .		0
99	DISSIPATIVE SOLITONS: PRESENT UNDERSTANDING, APPLICATIONS AND NEW DEVELOPMENTS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2009, 19, 2621-2636.	0.7	24
100	Complexes and molecules of dissipative solitons in mode-locked lasers. , 2009, , .		0
101	Near-field control of optical bistability in a nanocavity. Physical Review B, 2009, 80, .	1.1	7
102	Passively mode-locked erbium-doped double-clad fiber laser operating at the 322nd harmonic. Optics Letters, 2009, 34, 2120.	1.7	136
103	Demonstration of a reef knot microfiber resonator. Optics Express, 2009, 17, 6224.	1.7	49
104	Rains of solitons in a fiber laser. Optics Express, 2009, 17, 11776.	1.7	214
105	Stationary and pulsating dissipative light bullets from a collective variable approach. Physical Review E, 2009, 79, 026609.	0.8	33
106	High order harmonic passive mode-locking in double-clad fiber laser. , 2009, , .		1
107	Roadmap to ultra-short record high-energy pulses out of laser oscillators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 3124-3128.	0.9	189
108	Numerical Maps for Fiber Lasers Mode Locked with Nonlinear Polarization Evolution: Comparison with Semi-Analytical Models. Fiber and Integrated Optics, 2008, 27, 320-340.	1.7	21

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109	Observation of a nonlinear microfiber resonator. Optics Letters, 2008, 33, 1500.	1.7	70
110	Theoretical study of microfiber resonator devices exploiting a phase shift. Journal of Optics, 2008, 10, 025303.	1.5	31
111	Slow and Fast Nonlinearities in Microfiber Resonators. , 2008, , .		0
112	Reef Knot Microfiber Resonators. , 2008, , .		0
113	Highly-chirped similaritons generation from a mode-locked fiber laser. , 2007, , .		0
114	Interactions and transformations of dissipative optical bullets. , 2007, , .		0
115	On the possibility of observing bound soliton pairs in a "wave-breaking-free" mode-locked fiber laser. , 2007, , .		0
116	Vibrating temporal soliton pairs. , 2007, , .		0
117	Bistable device based on the Kerr effect in a microfiber resonator. , 2007, , .		0
118	On the possibility of observing bound soliton pairs in a wave-breaking-free mode-locked fiber laser. Optics Letters, 2007, 32, 343.	1.7	39
119	Soliton complexes in dissipative systems: Vibrating, shaking, and mixed soliton pairs. Physical Review E, 2007, 75, 016613.	0.8	90
120	Dissipative solitons for real world optical solitons. , 2007, , .		1
121	Spatiotemporal optical solitons in nonlinear dissipative media: From stationary light bullets to pulsating complexes. Chaos, 2007, 17, 037112.	1.0	56
122	Vibrating and shaking soliton pairs in dissipative systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 364, 413-416.	0.9	13
123	Vibrating soliton pairs in a mode-locked laser cavity. Optics Letters, 2006, 31, 2115.	1.7	106
124	Optical bullets and "rockets" in nonlinear dissipative systems and their transformations and interactions. Optics Express, 2006, 14, 4013.	1.7	56
125	<title>Dissipative temporal solitons in a laser cavity</title>. , 2006, 6255, 36.		0
126	Optical bullets and double bullet complexes in dissipative systems. Physical Review E, 2006, 74, 046612.	0.8	34

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127	Optical Soliton Molecules in Fiber Lasers. , 2006, , .		1
128	Stationary and Pulsating Dissipative Optical Bullets. , 2006, , .		0
129	Regions of Existence and Transformations of (3+1)-D Dissipative Optical Solitons. , 2006, , .		0
130	Dissipative soliton interactions inside a fiber laser cavity. Optical Fiber Technology, 2005, 11, 209-228.	1.4	85
131	DISSIPATIVE SOLITON PULSATIONS WITH PERIODS BEYOND THE LASER CAVITY ROUND TRIP TIME. Journal of Nonlinear Optical Physics and Materials, 2005, 14, 177-194.	1.1	12
132	Light bullets and dynamic pattern formation in nonlinear dissipative systems. Optics Express, 2005, 13, 9352.	1.7	62
133	Temporal Multi-Soliton Complexes Generated by Passively Mode-Locked Lasers. Lecture Notes in Physics, 2005, , 207-239.	0.3	10
134	Bifurcations and multiple-period soliton pulsations in a passively mode-locked fiber laser. Physical Review E, 2004, 70, 066612.	0.8	207
135	Generation of Bound States of Three Ultrashort Pulses With a Passively Mode-Locked High-Power Yb-Doped Double-Clad Fiber Laser. IEEE Photonics Technology Letters, 2004, 16, 1274-1276.	1.3	61
136	Multisoliton states and pulse fragmentation in a passively mode-locked fibre laser. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, S271-S278.	1.4	61
137	Group interactions of dissipative solitons in a laser cavity: the case of 2+1. Optics Express, 2004, 12, 3184.	1.7	64
138	Quantized separations of phase-locked soliton pairs in fiber lasers. Optics Letters, 2003, 28, 1757.	1.7	128
139	Relative phase locking of pulses in a passively mode-locked fiber laser. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 863.	0.9	99
140	Soliton pairs in a fiber laser: from anomalous to normal average dispersion regime. Optics Express, 2003, 11, 2238.	1.7	96
141	Discrete set of separations between phase-locked soliton pairs in a passively mode-locked fiber laser. , 2003, , .		0
142	Phase-locked soliton pairs in a stretched-pulse fiber laser. Optics Letters, 2002, 27, 966.	1.7	247
143	phase-locked soliton pairs in a fiber ring laser. , 2002, , NLMA2.		0
144	Stabilisation of modelocking in fibre ring laser through pulse bunching. Electronics Letters, 2001, 37, 745.	0.5	32

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145	Complete intensity and phase characterisation of optical pulse trains at terahertz repetition rates. Electronics Letters, 1999, 35, 2042.	0.5	12
146	Generation of optical domain-wall structures from modulational instability in a bimodal fiber. Physical Review E, 1999, 60, 994-1000.	0.8	10
147	Automatic time delay optimization between the pump and seed pulses of a broadly tunable femtosecond optical parametric amplifier. Applied Optics, 1998, 37, 2411.	2.1	2
148	Quantum-nondemolition measurements using cold trapped atoms: Comparison between theory and experiment. Physical Review A, 1998, 57, 2980-2995.	1.0	32
149	Quantum non-demolition measurements using cold atoms in an optical cavity. Journal of Modern Optics, 1997, 44, 1967-1984.	0.6	0
150	Quantum Nondemolition Measurements using Cold Trapped Atoms. Physical Review Letters, 1997, 78, 634-637.	2.9	122
151	Nonlinear absorption and dispersion of cold Rb 87 atoms. Optics Communications, 1997, 137, 420-426.	1.0	27
152	Generation of interacting pulse pairs in passively mode-locked fiber lasers. , 0, , .		0
153	Soliton pulsations in a fiber laser cavity with periods beyond the round trip time. , 0, , .		0