

Pierre Suret

List of Publications by Year in descending order

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82
papers

2,218
citations

218592

26
h-index

223716

46
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82
all docs

82
docs citations

82
times ranked

1148
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical wave turbulence: Towards a unified nonequilibrium thermodynamic formulation of statistical nonlinear optics. <i>Physics Reports</i> , 2014, 542, 1-132.	10.3	208
2	Single-shot observation of optical rogue waves in integrable turbulence using time microscopy. <i>Nature Communications</i> , 2016, 7, 13136.	5.8	186
3	Optical Rogue Waves in Integrable Turbulence. <i>Physical Review Letters</i> , 2015, 114, 143903.	2.9	159
4	Single-shot measurement of phase and amplitude by using a heterodyne time-lens system and ultrafast digital time-holography. <i>Nature Photonics</i> , 2018, 12, 228-234.	15.6	126
5	Universality of the Peregrine Soliton in the Focusing Dynamics of the Cubic Nonlinear Schrödinger Equation. <i>Physical Review Letters</i> , 2017, 119, 033901.	2.9	103
6	Inverse scattering transform analysis of rogue waves using local periodization procedure. <i>Scientific Reports</i> , 2016, 6, 29238.	1.6	80
7	Experimental evidence of extreme value statistics in Raman fiber lasers. <i>Optics Letters</i> , 2012, 37, 500.	1.7	76
8	Nonlinear Evolution of the Locally Induced Modulational Instability in Fiber Optics. <i>Physical Review Letters</i> , 2019, 122, 054101.	2.9	69
9	Intermittency in Integrable Turbulence. <i>Physical Review Letters</i> , 2014, 113, 113902.	2.9	68
10	Bound State Soliton Gas Dynamics Underlying the Spontaneous Modulational Instability. <i>Physical Review Letters</i> , 2019, 123, 234102.	2.9	67
11	Cancerous Cell Death from Sensitizer Free Photoactivation of Singlet Oxygen. <i>Photochemistry and Photobiology</i> , 2012, 88, 167-174.	1.3	66
12	The Physics of the one-dimensional nonlinear Schrödinger equation in fiber optics: Rogue waves, modulation instability and self-focusing phenomena. <i>Reviews in Physics</i> , 2020, 5, 100037.	4.4	59
13	Spectral broadening of a multimode continuous-wave optical field propagating in the normal dispersion regime of a fiber. <i>Optics Letters</i> , 2006, 31, 1696.	1.7	54
14	Statistical Properties of the Nonlinear Stage of Modulation Instability in Fiber Optics. <i>Physical Review Letters</i> , 2019, 123, 093902.	2.9	51
15	Nonlinear Spectral Synthesis of Soliton Gas in Deep-Water Surface Gravity Waves. <i>Physical Review Letters</i> , 2020, 125, 264101.	2.9	50
16	Nonlinear spectral analysis of Peregrine solitons observed in optics and in hydrodynamic experiments. <i>Physical Review E</i> , 2018, 98, 022219.	0.8	49
17	Influence of spectral broadening on steady characteristics of Raman fiber lasers: from experiments to questions about validity of usual models. <i>Optics Communications</i> , 2004, 237, 201-212.	1.0	45
18	A high-power tunable Raman fiber ring laser for the investigation of singlet oxygen production from direct laser excitation around 1270 nm. <i>Optics Express</i> , 2010, 18, 22928.	1.7	43

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19	Wave turbulence in integrable systems: nonlinear propagation of incoherent optical waves in single-mode fibers. <i>Optics Express</i> , 2011, 19, 17852.	1.7	43
20	Anomalous Thermalization of Nonlinear Wave Systems. <i>Physical Review Letters</i> , 2010, 104, 054101.	2.9	42
21	Nonlinear random optical waves: Integrable turbulence, rogue waves and intermittency. <i>Physica D: Nonlinear Phenomena</i> , 2016, 333, 323-335.	1.3	39
22	Intracavity changes in the field statistics of Raman fiber lasers. <i>Optics Letters</i> , 2011, 36, 790.	1.7	38
23	Spontaneous emergence of rogue waves in partially coherent waves: A quantitative experimental comparison between hydrodynamics and optics. <i>Physical Review E</i> , 2018, 97, 012208.	0.8	32
24	Influence of third-order dispersion on the propagation of incoherent light in optical fibers. <i>Optics Letters</i> , 2010, 35, 2367.	1.7	30
25	On the origin of heavy-tail statistics in equations of the Nonlinear Schrödinger type. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 3173-3177.	0.9	28
26	From modulational instability to focusing dam breaks in water waves. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	28
27	Self-pulsing instabilities in an optical parametric oscillator: Experimental observation and modeling of the mechanism. <i>Physical Review A</i> , 2000, 61, .	1.0	25
28	Thermalization and condensation in an incoherently pumped passive optical cavity. <i>Physical Review A</i> , 2011, 84, .	1.0	22
29	Twenty years of progresses in oceanic rogue waves: the role played by weakly nonlinear models. <i>Natural Hazards</i> , 2016, 84, 541-548.	1.6	22
30	Optical Random Riemann Waves in Integrable Turbulence. <i>Physical Review Letters</i> , 2017, 118, 233901.	2.9	21
31	Influence of light polarization on dynamics of continuous-wave-pumped Raman fiber lasers. <i>Optics Letters</i> , 2003, 28, 2464.	1.7	19
32	Influence of dispersion of fiber Bragg grating mirrors on formation of optical power spectrum in Raman fiber lasers. <i>Optics Letters</i> , 2010, 35, 2505.	1.7	17
33	Cell death induced by direct laser activation of singlet oxygen at 1270 nm. <i>Laser Physics</i> , 2013, 23, 025601.	0.6	16
34	Emergence of Peregrine solitons in integrable turbulence of deep water gravity waves. <i>Physical Review Fluids</i> , 2020, 5, .	1.0	15
35	Statistics of a turbulent Raman fiber laser. <i>Optics Letters</i> , 2015, 40, 3101.	1.7	14
36	Topological Swing of Bloch Oscillations in Quantum Walks. <i>Physical Review Letters</i> , 2020, 125, 186804.	2.9	14

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37	Prediction and manipulation of hydrodynamic rogue waves via nonlinear spectral engineering. <i>Physical Review Fluids</i> , 2022, 7, .	1.0	13
38	Extreme rogue wave generation from narrowband partially coherent waves. <i>Physical Review E</i> , 2021, 103, 032209.	0.8	12
39	Influence of light polarization on dynamics of all-fiber Raman lasers: theoretical analysis. <i>Optics Letters</i> , 2004, 29, 2166.	1.7	11
40	Toward passive mode locking by nonlinear polarization evolution in a cascaded Raman fiber ring laser. <i>Optics Communications</i> , 2006, 267, 145-148.	1.0	11
41	Grating-free Raman laser using highly nonlinear photonic crystal fiber. <i>Optics Express</i> , 2007, 15, 16035.	1.7	11
42	Self-oscillations in a cascaded Raman laser made with a highly nonlinear photonic crystal fiber. <i>Optics Express</i> , 2008, 16, 11237.	1.7	10
43	Transient buildup of the optical power spectrum in Raman fiber lasers. <i>Optics Express</i> , 2013, 21, 2331.	1.7	10
44	Numerical spectral synthesis of breather gas for the focusing nonlinear Schrödinger equation. <i>Physical Review E</i> , 2021, 103, 042205.	0.8	10
45	Solitonic model of the condensate. <i>Physical Review E</i> , 2021, 104, 044213.	0.8	10
46	Periodic mode hopping induced by thermo-optic effects in continuous-wave optical parametric oscillators. <i>Optics Letters</i> , 2001, 26, 1415.	1.7	9
47	Early stage of integrable turbulence in the one-dimensional nonlinear Schrödinger equation: A semiclassical approach to statistics. <i>Physical Review E</i> , 2019, 100, 032212.	0.8	9
48	Fast oscillations in an optical parametric oscillator. <i>Optics Communications</i> , 2001, 200, 369-379.	1.0	8
49	Observation of a giant nonlinear wave-packet on the surface of the ocean. <i>Scientific Reports</i> , 2021, 11, 23606.	1.6	8
50	Local Emergence of Peregrine Solitons: Experiments and Theory. <i>Frontiers in Physics</i> , 2021, 8, .	1.0	7
51	Chapter 4. Production of Singlet Oxygen by Direct Photoactivation of Molecular Oxygen. <i>Comprehensive Series in Photochemical and Photobiological Sciences</i> , 2016, , 75-91.	0.3	7
52	Kinetic Description of Random Optical Waves and Anomalous Thermalization of a Nearly Integrable Wave System. <i>Letters in Mathematical Physics</i> , 2011, 96, 415-447.	0.5	6
53	Polarization-resolved analysis of the characteristics of a Raman laser made with a polarization maintaining fiber. <i>Optics Communications</i> , 2006, 260, 232-241.	1.0	5
54	Origins of spectral broadening of incoherent waves: Catastrophic process of coherence degradation. <i>Physical Review A</i> , 2017, 96, .	1.0	5

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55	Single-shot measurement of the photonic band structure in a fiber-based Floquet-Bloch lattice. Communications Physics, 2021, 4, .	2.0	5
56	Spatiotemporal observation of higher-order modulation instability in a recirculating fiber loop. Optics Letters, 2022, 47, 3560.	1.7	5
57	Hydrodynamic and Optical Waves: A Common Approach for Unidimensional Propagation. Lecture Notes in Physics, 2016, , 1-22.	0.3	4
58	Phase Evolution of the Time- and Space-Like Peregrine Breather in a Laboratory. Fluids, 2021, 6, 308.	0.8	4
59	Grating-Free and Bragg-Grating-Based Raman Lasers Made With Highly Nonlinear Photonic Crystal Fibers. Journal of Lightwave Technology, 2009, 27, 1580-1589.	2.7	3
60	Single-shot observation of breathers from noise-induced modulation instability using heterodyne temporal imaging. Optics Letters, 2021, 46, 298.	1.7	3
61	Nonlinear dispersion relation in integrable turbulence. Scientific Reports, 2022, 12, .	1.6	3
62	Cooperative Oscillation of Nondegenerate Transverse Modes in an Optical System: Multimode Operation in Parametric Oscillators. Physical Review Letters, 2009, 102, 183901.	2.9	2
63	Single-shot observation of optical rogue waves in integrable turbulence using time microscopy. , 2017, , .		1
64	Phase and amplitude single-shot measurement by using time-lens and ultrafast time-holography. , 2017, , .		1
65	Optical rogue waves in Raman fiber lasers. , 2012, , .		1
66	Dynamics of optical parametric oscillators. , 2003, , .		0
67	Dynamics and spectral properties of a grating-free Raman laser made with a highly nonlinear photonic crystal fiber. Proceedings of SPIE, 2008, , .	0.8	0
68	Anomalous thermalization of optical waves induced by third-order dispersion effects. , 2010, , .		0
69	Anomalous thermalization of nonlinear opticalwave systems. , 2011, , .		0
70	Statistical properties and optical spectra of Raman fiber lasers: Influence of Bragg-grating mirrors. , 2011, , .		0
71	Nonlinear propagation of incoherent waves in single-mode fibers: from wave turbulence theory to experiments. , 2012, , .		0
72	Integrable Turbulence with Nonlinear Random Optical Waves. Lecture Notes in Physics, 2016, , 277-307.	0.3	0

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73	Optical rogue waves in integrable turbulence. , 2016, , .		0
74	Single shot observation of rogue waves in optical turbulence by using time microscopy. , 2017, , .		0
75	Single-Shot Time-Resolved Phase and Intensity Measurement of Breathers in the Nonlinear Stage of Modulation Instability. , 2019, , .		0
76	All-fiber Raman lasers with highly nonlinear photonic crystal fibers. , 2009, , .		0
77	Anomalous Thermalization of Nonlinear Optical Waves. , 2010, , .		0
78	Temporal dynamics of incoherent nonlinear waves. , 2014, , .		0
79	Intermittency in integrable turbulence. , 2014, , .		0
80	Catastrophic process of coherence degradation. , 2018, , .		0
81	Phase and amplitude single-shot measurement by using heterodyne time-lens and ultrafast digital time-holography (Conference Presentation). , 2018, , .		0
82	Thermodynamic equilibrium of optical waves. Nature Physics, 0, , .	6.5	0