Sonia A Boscolo

List of Publications by Year
in descending order

106	1,422	361045	360668
papers	citations	20 h-index	35 g-index

109	109	109	771
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Breathing dissipative solitons in mode-locked fiber lasers. Science Advances, 2019, 5, eaax1110.	4.7	203
2	Doubling of optical signals using triangular pulses. Journal of the Optical Society of America B: Optical Physics, 2009, 26, 1492.	0.9	93
3	Passive Nonlinear Pulse Shaping in Normally Dispersive Fiber Systems. IEEE Journal of Quantum Electronics, 2008, 44, 1196-1203.	1.0	86
4	Breather Molecular Complexes in a Passively Modeâ€Locked Fiber Laser. Laser and Photonics Reviews, 2021, 15, 2000132.	4.4	68
5	Dissipative dispersion-managed solitons in mode-locked lasers. Optics Letters, 2009, 34, 3286.	1.7	57
6	Generation of triangular-shaped optical pulses in normally dispersive fibre. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.0	50
7	Artificial neural networks for nonlinear pulse shaping in optical fibers. Optics and Laser Technology, 2020, 131, 106439.	2.2	50
8	Intelligent Breathing Soliton Generation in Ultrafast Fiber Lasers. Laser and Photonics Reviews, 2022, 16, .	4.4	49
9	Nonlinear loop mirror-based all-optical signal processing in fiber-optic communications. Optical Fiber Technology, 2008, 14, 299-316.	1.4	48
10	Pulse shaping in mode-locked fiber lasers by in-cavity spectral filter. Optics Letters, 2014, 39, 438.	1.7	39
11	Optical frequency conversion, pulse compression and signal copying using triangular pulses. , 2008, , .		38
12	All-optical TDM to WDM signal conversion and partial regeneration using XPM with triangular pulses. , 2008, , .		37
13	Amplifier similariton fiber laser with nonlinear spectral compression. Optics Letters, 2012, 37, 4531.	1.7	36
14	All-optical passive 2R regeneration for NÃ—40 Gbit/s WDM transmission using NOLM and novel filtering technique. Optics Communications, 2003, 217, 227-232.	1.0	33
15	Intracavity dynamics in high-power mode-locked fiber lasers. Physical Review A, 2010, 81, .	1.0	32
16	Effects of fourth-order fiber dispersion on ultrashort parabolic optical pulses in the normal dispersion regime. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 2059.	0.9	31
17	Design rules for nonlinear spectral compression in optical fibers. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 760.	0.9	31
18	Filter-Based Dispersion-Managed Versatile Ultrafast Fibre Laser. Scientific Reports, 2016, 6, 25995.	1.6	29

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19	Impact of third-order fibre dispersion on the evolution of parabolic optical pulses. Journal of Optics (United Kingdom), 2010, 12, 015202.	1.0	23
20	Autosoliton transmission in dispersion-managed systems guided by in-line nonlinear optical loop mirrors. Optics Letters, 2000, 25, 1240.	1.7	21
21	Intermediate asymptotics in nonlinear optical systems. Physical Review A, 2012, 85, .	1.0	21
22	Nonlinear Pulse Shaping in Fibres for Pulse Generation and Optical Processing. International Journal of Optics, 2012, 2012, 1-14.	0.6	21
23	Modelling self-similar parabolic pulses in optical fibres with a neural network. Results in Optics, 2021, 3, 100066.	0.9	20
24	Nonlinear sculpturing of optical pulses with normally dispersive fiber-based devices. Optical Fiber Technology, 2018, 45, 306-312.	1.4	19
25	Time domain all-optical signal processing at a RZ optical receiver. Optics Express, 2005, 13, 6217.	1.7	17
26	Nonlinear spectral shaping and optical rogue events in fiber-based systems. Optical Fiber Technology, 2012, 18, 248-256.	1.4	14
27	Nonlinear spectrum broadening cancellation by sinusoidal phase modulation. Optics Letters, 2017, 42, 2902.	1.7	14
28	Microstructured waveguides in z-cut LiNbO_3 by high-repetition rate direct femtosecond laser inscription. Optical Materials Express, 2014, 4, 1708.	1.6	13
29	All-optical passive quasi-regeneration in transoceanic 40 Gbit/s return-to-zero transmission systems with strong dispersion management. Optics Communications, 2002, 205, 277-280.	1.0	12
30	Performance analysis of 20Gb/s RZ-DPSK non-slope matched transoceanic submarine links. Optics Express, 2007, 15, 10999.	1.7	12
31	Control of the properties of micro-structured waveguides in lithium niobate crystal. Optics Express, 2013, 21, 17122.	1.7	12
32	Design and Applications of In-Cavity Pulse Shaping by Spectral Sculpturing in Mode-Locked Fibre Lasers. Applied Sciences (Switzerland), 2015, 5, 1379-1398.	1.3	12
33	Performance analysis of dual-pump nonlinear amplifying loop mirror mode-locked all-fibre laser. Laser Physics Letters, 2019, 16, 065105.	0.6	11
34	Simple guidelines to predict self-phase modulation patterns. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 3143.	0.9	11
35	Bit error rate improvement by nonlinear optical decision element. Optics Letters, 2006, 31, 1205.	1.7	10
36	Nonlinear Fibre-Based Photonic Technologies. International Journal of Optics, 2012, 2012, 1-2.	0.6	10

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37	Secret key exchange in ultralong lasers by radiofrequency spectrum coding. Light: Science and Applications, 2015, 4, e276-e276.	7.7	10
38	Bandwidth Programmable Optical Nyquist Pulse Generation in Passively Mode-Locked Fiber Laser. IEEE Photonics Journal, 2015, 7, 1-9.	1.0	9
39	Optimisation of microstructured waveguides in z-cut LiNbO_3 crystals. Optical Materials Express, 2014, 4, 541.	1.6	8
40	Impact of amplitude jitter and signal-to-noise ratio on the nonlinear spectral compression in optical fibres. Optics Communications, 2017, 389, 197-202.	1.0	8
41	Impact of initial pulse shape on the nonlinear spectral compression in optical fibre. Optics and Laser Technology, 2018, 99, 301-309.	2.2	8
42	High-repetition-rate femtosecond-laser inscription of low-loss thermally stable waveguides in lithium niobate. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	1.1	8
43	Mitigation of patterning effects at 40 Gbits/s by skewed channel pre-encoding. Journal of Optical Networking, 2007, 6, 984.	2.5	7
44	Comparative Analysis of BER Estimation Methods in Numerical Simulation of 40-Gb/s RZ-DPSK Transmission With In-Line SOAs. IEEE Photonics Technology Letters, 2007, 19, 607-609.	1.3	7
45	Impact of initial pulse characteristics on the mitigation of self-phase modulation by sinusoidally time varying phase. Optical and Quantum Electronics, 2018, 50, 1.	1.5	6
46	Digital compensation of imperfect pump counter-phasing induced phase distortion in optical phase conjugation of high-order QAM. Optics Express, 2021, 29, 17464.	1.7	6
47	Transfer characteristics and propagation effects of a multi-resonance ring resonator-based optical device. Journal of Modern Optics, 2004, 51, 559-573.	0.6	5
48	Localized Waves in Optical Systems with Periodic Dispersion and Nonlinearity Management. Advances in Nonlinear Optics, 2009, 2009, 1-13.	0.6	5
49	Nonlinear pulse shaping and polarization dynamics in mode-locked fiber lasers. International Journal of Modern Physics B, 2014, 28, 1442011.	1.0	5
50	Impact of a temporal sinusoidal phase modulation on the optical spectrum. European Journal of Physics, 2018, 39, 055303.	0.3	5
51	Passive regeneration in 40ÂGbit/s-based WDM dispersion-managed RZ transmission systems by in-line NOLMs. Optical Fiber Technology, 2002, 8, 313-318.	1.4	4
52	Adaptive Electrical Signal Post-processing with Varying Representations in Optical Communication Systems. Communications in Computer and Information Science, 2009, , 235-245.	0.4	4
53	RZ-DPSK transmission at 80Gbit/s channel rate using in-line semiconductor optical amplifiers. Optics Communications, 2006, 266, 656-659.	1.0	3
54	Generation of 64-fs L-band stretched pulses from an all-fibre Er-doped laser. Optics Express, 2021, 29, 34892.	1.7	3

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55	Temporal and Spectral Nonlinear Pulse Shaping Methods in Optical Fibers. Springer Series in Optical Sciences, 2015, , 105-128.	0.5	3
56	Kernel adaptive filtering-based phase noise compensation for pilot-free optical phase conjugated coherent systems. Optics Express, 0, , .	1.7	3
57	A Perturbative Analysis of Dispersion-Managed Solitons. Physica Scripta, 2000, 62, 479-485.	1.2	2
58	Optical data transmission using periodic in-line all-optical format conversion. Optics Express, 2004, 12, 4875.	1.7	2
59	Interferometric optical switch enhanced by a multi-resonance ring resonator structure. Journal of Modern Optics, 2005, 52, 845-855.	0.6	2
60	Passive Nonlinear Pulse Shaping in Normally Dispersive Fiber. , 2008, , .		2
61	Tailored Waveform Generation in Mode-Locked Fiber Lasers by In-Cavity Pulse Shaper. , 2014, , .		2
62	Temporal optical besselon waves for high-repetition rate picosecond sources. JPhys Photonics, 2021, 3, 025001.	2.2	2
63	Correcting Errors in Optical Data Transmission Using Neural Networks. Lecture Notes in Computer Science, 2010, , 448-457.	1.0	2
64	Impact of third-order dispersion on the evolution of parabolic pulses. Proceedings of SPIE, 2010, , .	0.8	1
65	Efficient optimisation of per-channel pre-compensation in WDM 20-Gbit/s RZ-DPSK transmission in non-slope matched submarine links. Optics Communications, 2010, 283, 2263-2267.	1.0	1
66	Nonlinearly generated advanced pulse waveforms for optical signal processing. , 2012, , .		1
67	Control of the Properties of Micro-Structured Waveguides in Lithium Niobate Crystal. , 2013, , .		1
68	Switching among pulse-generation regimes in passively mode-locked fibre laser by adaptive filtering. , 2016, , .		1
69	Ultralong Raman Fiber Lasers and Their Applications. , 2017, , 435-460.		1
70	Pulsating solitons in mode-locked fibre lasers. , 2017, , .		1
71	Exploring Fresnel diffraction at a straight edge with a neural network. European Journal of Physics, 2022, 43, 035306.	0.3	1
72	RZ-DPSK Transmission at 80 Gbit/s Channel Rate Using In-Line Semiconductor Optical Amplifiers. , 2006, , .		0

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73	<title>All-optical signal regeneration by temporal slicing of nonlinearly flattened optical waveform</title>. , 2006, 6259, 141.		0
74	<title>On the theory of autosoliton propagation in optical fibers guided by in-line nonlinear devices</title>. , 2006, 6255, 11.		0
75	Mitigation of Patterning Effects at 40 Gb/s by Skewed Channel Pre-Encoding. , 2007, , .		0
76	Recent Developments in All-Optical Nonlinear Signal Processing for Fiber-Optic Communications. , 2007, , .		0
77	Novel approaches in nonlinear optical fibre-based signal processing. , 2008, , .		0
78	Recent developments in all-optical nonlinear data processing. , 2008, , .		0
79	Recent developments in all-optical nonlinear data processing. , 2008, , .		0
80	Optimisation and statistical analysis of 21.4 Gb/s RZ-DPSK WDM non-slope matched transmission. , 2008, , .		0
81	<title>Bit-error rate performance of 20 Gbit/s WDM RZ-DPSK non-slope matched submarine transmission systems</title>. Proceedings of SPIE, 2008, , .	0.8	0
82	All-optical nonlinear fibre signal processing. , 2009, , .		0
83	New developments in the study of optical parabolic pulses in normally dispersive fibers. , 2011, , .		0
84	Pulse shaping in mode-locked ring-cavity fibre lasers. , 2011, , .		0
85	New fiber laser architecture with transform-limited nonlinear spectral compression. , 2012, , .		0
86	Nonlinear pulse shaping and polarization dynamics in mode-locked fibre lasers. , 2013, , .		0
87	Control of the properties of micro-structured waveguides in LiNbO<inf>3</inf> fabricated by direct femtosecond laser inscription. , 2013, , .		0
88	Design and fabrication of micro-structured waveguides in lithium niobate. , 2014, , .		0
89	In-cavity pulse shaping by spectral sculpturing in mode-locked fibre lasers. , 2016, , .		0
90	Enhanced spectral compression in nonlinear optical fibres. , 2016, , .		0

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91	Nonlinear spectral compression in fibre as a power-limiting device. , 2017, , .		0
92	Nonlinear spectral compression in optical fiber: A new tool for processing degraded signals. , 2017, , .		0
93	Offsetting Self-Phase Modulation in Optical Fibre by Sinusoidally Time-Varying Phase. , 2018, , .		0
94	Performance Optimisation of Dual-Pump NALM Fibre Laser Using Machine Learning Inference. , 2018, , .		0
95	Nonlinear Sculpturing of Optical Pulses in Fibre Systems. , 2019, , .		0
96	Optical Waveform Tailoring in Passive and Laser Cavity Fibre Systems. , 2019, , .		0
97	Excitation of Breather Solitons in a Mode-Locked Fibre Laser. , 2019, , .		0
98	Striking Nonlinear Dynamics of Mode-Locked Fibre Lasers. , 2020, , .		0
99	2R and 3R optical regeneration in 40 Gbit/s WDM terrestrial networks. , 2004, , .		0
100	Normal dispersion fibre-enhanced nonlinear optical loop mirror for 2R regeneration and phase margin improvement. , 2004, , .		0
101	Amplifier Similariton Fibre Laser with Nonlinear Spectral Compression. , 2012, , .		0
102	High-repetition-rate Femtosecond-laser Inscription of Low-loss Thermally Stable Waveguides in Lithium Niobate. , 2018, , .		0
103	Mitigation of self-phase modulation by sinusoidally time varying phase (Conference Presentation). , 2018, , .		0
104	High-repetition-rate femtosecond-laser micromachining of low-loss optical-lattice-like waveguides in lithium niobate. , 2018, , .		0
105	Nonlinear Pulse Shaping in Optical Fibres with a Neural Network. , 2020, , .		0
106	Intelligent Breathing Soliton Generation in Ultrafast Fiber Lasers (Laser Photonics Rev. 16(2)/2022). Laser and Photonics Reviews, 2022, 16, 2270009.	4.4	0