

# François Leo

## List of Publications by Year in descending order

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114  
papers

2,980  
citations

172457

29  
h-index

161849

54  
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115  
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115  
docs citations

115  
times ranked

2137  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dissipative localized states and breathers in phase-mismatched singly resonant optical parametric oscillators: Bifurcation structure and stability. <i>Physical Review Research</i> , 2022, 4, .	3.6	6
2	Mode-locking induced by coherent driving in fiber lasers. <i>Optics Letters</i> , 2022, 47, 3527.	3.3	3
3	Neuronlike spiking dynamics in asymmetrically driven dissipative nonlinear photonic dimers. <i>Physical Review A</i> , 2022, 106, .	2.5	3
4	Efficient type II second harmonic generation in an indium gallium phosphide on insulator wire waveguide aligned with a crystallographic axis. <i>Optics Letters</i> , 2021, 46, 1490.	3.3	4
5	Temporal solitons in a coherently driven active resonator. <i>Nature Photonics</i> , 2021, 15, 536-541.	31.4	37
6	Self-Pulsing in Photonic Dimers. , 2021, , .		0
7	Bright localized patterns in singly resonant optical parametric oscillators. , 2021, , .		0
8	Temporal Cavity Soliton in a Coherently Driven Active Fiber Resonator. , 2021, , .		0
9	Bright and dark localized states in doubly resonant optical parametric oscillators. , 2021, , .		0
10	Parametric solitons in optical resonators. , 2021, , .		0
11	Parametrically driven Kerr cavity solitons. <i>Nature Photonics</i> , 2021, 15, 857-861.	31.4	31
12	Temporal Cavity Soliton in an Active Fiber Resonator. , 2021, , .		0
13	Self-pulsing in driven-dissipative photonic Bose-Hubbard dimers. <i>Physical Review Research</i> , 2021, 3, .	3.6	6
14	Dark quadratic localized states and collapsed snaking in doubly resonant dispersive cavity-enhanced second-harmonic generation. <i>Physical Review A</i> , 2021, 104, .	2.5	9
15	Phase locked short pulses generation in a driven laser cavity. , 2021, , .		0
16	Phase-locked short pulses in a driven laser cavity. , 2021, , .		0
17	Temporal Cavity Solitons in an Active Cavity. , 2021, , .		0
18	Second-harmonic generation enabled by longitudinal electric-field components in photonic wire waveguides. <i>Physical Review A</i> , 2020, 102, .	2.5	8

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19	Parametric localized patterns and breathers in dispersive quadratic cavities. <i>Physical Review A</i> , 2020, 101, .	2.5	16
20	Optical Frequency Combs in Quadratically Nonlinear Resonators. <i>Micromachines</i> , 2020, 11, 230.	2.9	31
21	Modeling of quasi-phase-matched cavity-enhanced second-harmonic generation. <i>Physical Review A</i> , 2020, 101, .	2.5	4
22	Supercontinuum Generation Assisted by Wave Trapping in Dispersion-Managed Integrated Silicon Waveguides. <i>Physical Review Applied</i> , 2020, 14, .	3.8	13
23	Enhancing the nonlinear functionality of step-index silica fibers through the combination of thermal poling and 2D materials. , 2020, , .		1
24	Influence of longitudinal mode components on second harmonic generation in III-V-on-insulator nanowires. <i>Optics Express</i> , 2020, 28, 31584.	3.4	8
25	Polarization modulation instability in a nonlinear fiber Kerr resonator. <i>Optics Letters</i> , 2020, 45, 5069.	3.3	12
26	Octave-spanning coherent supercontinuum generation in an AlGaAs-on-insulator waveguide. <i>Optics Letters</i> , 2020, 45, 603.	3.3	54
27	Temporal localized structures in doubly resonant dispersive optical parametric oscillators. , 2020, , .		0
28	Localized States in Phase-Matched Doubly-Resonant Second-Harmonic Generation. , 2020, , .		0
29	Dynamics of localized patterns in doubly resonant dispersive optical parametric oscillators. , 2020, , .		0
30	Localized structures formed through domain wall locking in cavity-enhanced second-harmonic generation. <i>Optics Letters</i> , 2020, 45, 5856.	3.3	9
31	Quadratic Optical Frequency Combs: Towards a New Platform for Multi-Octave Microcombs. , 2020, , .		0
32	Localized structures in dispersive and doubly resonant optical parametric oscillators. <i>Physical Review E</i> , 2019, 100, 032219.	2.1	23
33	Phase Sensitive Amplification in a Periodically Poled Silica Fiber. , 2019, , .		0
34	Experimental Observation of Optical Frequency Combs in Doubly Resonant Second Harmonic Generation. , 2019, , .		0
35	Experimental Observation of Second Harmonic Generation Enabled by Longitudinal Components in Indium Gallium Phosphide Nanowires. , 2019, , .		0
36	Quadratic Optical Frequency Combs. , 2019, , .		0

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37	Single is better than double: theoretical and experimental comparison between two thermal poling configurations of optical fibers. Optics Express, 2019, 27, 27761.	3.4	7
38	Frequency comb generation through the locking of domain walls in doubly resonant dispersive optical parametric oscillators. Optics Letters, 2019, 44, 2004.	3.3	28
39	Second Harmonic Generation Induced by Longitudinal Components in Indium Gallium Phosphide Nanowaveguides. , 2019, , .		0
40	Quadratic cavity soliton optical frequency combs. , 2019, , .		0
41	Physical origin of higher-order soliton fission in nanophotonic semiconductor waveguides. Scientific Reports, 2018, 8, 17177.	3.3	7
42	Modulation Instability Induced Frequency Comb Generation in a Continuously Pumped Optical Parametric Oscillator. Physical Review Letters, 2018, 121, 093903.	7.8	89
43	Addressing temporal Kerr cavity solitons with a single pulse of intensity modulation. Optics Letters, 2018, 43, 3192.	3.3	23
44	Highly Nondegenerate Two-Photon Absorption in Silicon Wire Waveguides. Physical Review Applied, 2018, 10, .	3.8	6
45	Observation of super cavity solitons. , 2018, , .		0
46	Quadratic soliton combs in doubly resonant second-harmonic generation. Optics Letters, 2018, 43, 6033.	3.3	45
47	Second Harmonic Generation by Mixing Longitudinal and Transverse Electric Field Components in Indium Gallium Phosphide-on-insulator Wire Waveguides. , 2018, , .		0
48	Frequency comb generation in a continuously pumped optical parametric oscillator. , 2018, , .		0
49	Nonlinear optical interactions in silicon waveguides. Nanophotonics, 2017, 6, 377-392.	6.0	18
50	Singly resonant second-harmonic-generation frequency combs. Physical Review A, 2017, 95, .	2.5	35
51	Second-harmonic-assisted four-wave mixing in chip-based microresonator frequency comb generation. Light: Science and Applications, 2017, 6, e16253-e16253.	16.6	83
52	Nonlinear dynamics of optical frequency combs. , 2017, , .		0
53	Coexistence of Multiple Nonlinear States in a Tristable Passive Kerr Resonator. Physical Review X, 2017, 7, .	8.9	36
54	Universal mechanism for the binding of temporal cavity solitons. Optica, 2017, 4, 855.	9.3	104

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55	Observation of two-photon absorption induced soliton fission. , 2017, , .		0
56	Frequency comb generation in continuously pumped optical parametric oscillator. , 2017, , .		0
57	Observations of spatiotemporal instabilities of temporal cavity solitons. Optica, 2016, 3, 1071.	9.3	67
58	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
59	Observation of an optical event horizon in a silicon-on-insulator photonic wire waveguide. Optics Express, 2016, 24, 114.	3.4	29
60	Theory of quadratic optical frequency combs. , 2016, , .		0
61	Frequency-comb formation in doubly resonant second-harmonic generation. Physical Review A, 2016, 93, .	2.5	67
62	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
63	Numerical modelling of frequency comb generation in nonlinear resonators. , 2016, , .		0
64	Real Time Observations of Soliton Bound States, with Multiple Binding Mechanisms, in Passive Nonlinear Cavities. , 2016, , .		2
65	Theory of Frequency Comb Generation in Cavity Enhanced Second Harmonic Generation. , 2016, , .		1
66	Writing and Erasure of Temporal Cavity Solitons via Intensity Modulation of the Cavity Driving Field. , 2016, , .		1
67	Coexistence of Temporal Cavity Solitons and Modulation Instability in a Passive Kerr Cavity. , 2016, , .		0
68	Polarization domain-wall cavity solitons in isotropic fiber ring resonators. , 2016, , .		1
69	Observation of Spatiotemporal Chaos Induced by a Cavity Soliton in a Fiber Ring Resonator. , 2016, , .		0
70	Frequency combs in quadratically nonlinear resonators. , 2016, , .		0
71	Measurement of the Raman Self-Frequency Shift of a Temporal Cavity Soliton. , 2016, , .		3
72	Coexistence of Distinct Cavity Solitons States in a Tri-stable Passive Kerr Resonator. , 2016, , .		0

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73	Observations of Complex Spatiotemporal Instabilities in a Fiber Ring Resonator. , 2016, , .		0
74	Cherenkov-radiation-induced binding of temporal cavity solitons observed in a passive fiber ring resonator. , 2016, , .		0
75	Single envelope equation modelling of frequency comb generation in quadratic and cubic nonlinear resonators. , 2016, , .		0
76	Nonlinear optics on a silicon platform for broadband light generation and ultrafast information processing. , 2015, , .		0
77	Silicon and silicon nitride photonic circuits for spectroscopic sensing on-a-chip [Invited]. Photonics Research, 2015, 3, B47.	7.0	173
78	Existence and dynamics of pairs of temporal cavity solitons weakly-bound through kelly sidebands in a passive optical fiber resonator. , 2015, , .		0
79	Coherent supercontinuum generation in a silicon photonic wire in the telecommunication wavelength range. Optics Letters, 2015, 40, 123.	3.3	52
80	An octave-spanning mid-infrared frequency comb generated in a silicon nanophotonic wire waveguide. Nature Communications, 2015, 6, 6310.	12.8	191
81	Visible-to-near-infrared octave spanning supercontinuum generation in a silicon nitride waveguide. Optics Letters, 2015, 40, 2177.	3.3	110
82	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
83	Nonlinear properties of dispersion engineered InGaP photonic wire waveguides in the telecommunication wavelength range. Optics Express, 2015, 23, 4650.	3.4	41
84	A two-stage photonic crystal fiber / silicon photonic wire short-wave infrared wavelength converter/amplifier based on a 1064 nm pump source. Optics Express, 2015, 23, 13025.	3.4	2
85	Visible-to-near-Infrared Octave Spanning Supercontinuum Generation in a Partially Underetched Silicon Nitride Waveguide. , 2015, , .		0
86	Spatio-temporal stability of 1D Kerr cavity solitons. , 2014, , .		0
87	Dispersive wave emission and supercontinuum generation in a silicon wire waveguide pumped around the 1550nm telecommunication wavelength. Optics Letters, 2014, 39, 3623.	3.3	60
88	Supercontinuum Generation in Hydrogenated Amorphous Silicon Waveguides in the Femtosecond Regime. , 2014, , .		0
89	Experimental demonstration of coherent supercontinuum generation in a silicon wire pumped at telecommunication wavelengths. , 2014, , .		0
90	Femtosecond Supercontinuum Generation in a Silicon Wire Waveguide at Telecom Wavelengths. , 2014, , .		0

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91	Supercontinuum generation in hydrogenated amorphous silicon waveguides at telecommunication wavelengths. Optics Express, 2014, 22, 3089.	3.4	38
92	Generation of coherent supercontinuum in a-Si:H waveguides: experiment and modeling based on measured dispersion profile. Optics Express, 2014, 22, 28997.	3.4	27
93	Secondary instabilities in all fiber ring cavities. Physical Review A, 2014, 90, .	2.5	5
94	Measurement and tuning of the chromatic dispersion of a silicon photonic wire around the half band gap spectral region. Optics Letters, 2014, 39, 711.	3.3	9
95	Long-wavelength silicon photonic integrated circuits. , 2014, , .		0
96	Third-order chromatic dispersion stabilizes Kerr frequency combs. Optics Letters, 2014, 39, 2971.	3.3	78
97	Modeling Kerr frequency combs using the Lugiato-Lefever equation: a characterization of the multistable landscape. , 2014, , .		1
98	Silicon-Based Photonic Integration Beyond the Telecommunication Wavelength Range. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 394-404.	2.9	106
99	Stabilization of frequency combs using third order dispersion. , 2014, , .		0
100	Efficient Continuous Wave Conversion of Light Beyond the Half-Bandgap Spectral Region of Silicon. , 2014, , .		0
101	Nonlinear symmetry breaking and rogue waves formation in a dissipative optical system. , 2014, , .		0
102	Mid-IR heterogeneous silicon photonics. Proceedings of SPIE, 2013, , .	0.8	2
103	Nonlinear Symmetry Breaking Induced by Third-Order Dispersion in Optical Fiber Cavities. Physical Review Letters, 2013, 110, 104103.	7.8	50
104	Silicon-based heterogeneous photonic integrated circuits for the mid-infrared. Optical Materials Express, 2013, 3, 1523.	3.0	65
105	Telecom to mid-infrared spanning supercontinuum generation in hydrogenated amorphous silicon waveguides using a Thulium doped fiber laser pump source. Optics Express, 2013, 21, 32032.	3.4	30
106	Dynamics of one-dimensional Kerr cavity solitons. Optics Express, 2013, 21, 9180.	3.4	189
107	Mid-infrared to telecom-band stable supercontinuum generation in hydrogenated amorphous silicon waveguides. , 2013, , .		2
108	Cavity soliton oscillations in a one-dimensional fiber resonator. , 2012, , .		1

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109	High-Efficiency SOI Fiber-to-Chip Grating Couplers and Low-Loss Waveguides for the Short-Wave Infrared. IEEE Photonics Technology Letters, 2012, 24, 1536-1538.	2.5	53
110	Temporal cavity solitons in one-dimensional Kerr media as bits in an all-optical buffer. Nature Photonics, 2010, 4, 471-476.	31.4	609
111	Experimental Generation of 1.6-THz repetition-rate pulse-trains in a Passive Optical Fiber Resonator. , 2009, , .		0
112	Experimental Observation of the 1D Kerr-type Cavity Soliton in a Passive Optical Fiber Resonator. , 2009, , .		0
113	14O+p elastic scattering in a microscopic cluster model. AIP Conference Proceedings, 2006, , .	0.4	0
114	Microscopic cluster model analysis of O14+p elastic scattering. Physical Review C, 2005, 72, .	2.9	18