

Damia Gomila

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4071434/publications.pdf>

Version: 2024-02-01

81
papers

1,654
citations

279798

23
h-index

302126

39
g-index

82
all docs

82
docs citations

82
times ranked

770
citing authors

#	ARTICLE	IF	CITATIONS
1	Curvature effects and radial homoclinic snaking. IMA Journal of Applied Mathematics, 2021, 86, 1094-1111.	1.6	3
2	Assessing Blackout Risk With High Penetration of Variable Renewable Energies. IEEE Access, 2021, 9, 132663-132674.	4.2	9
3	Traveling pulses in type-I excitable media. Physical Review E, 2021, 104, L052203.	2.1	7
4	Effects of demand control on the complex dynamics of electric power system blackouts. Chaos, 2020, 30, 113121.	2.5	8
5	Patterns, localized structures and fronts in a reduced model of clonal plant growth. Physica D: Nonlinear Phenomena, 2020, 414, 132723.	2.8	6
6	Fluctuations and correlations in Kerr optical frequency combs with additive Gaussian noise. Chaos, 2020, 30, 083146.	2.5	5
7	General model for vegetation patterns including rhizome growth. Physical Review Research, 2020, 2, .	3.6	6
8	Reduction of power grid fluctuations by communication between smart devices. International Journal of Electrical Power and Energy Systems, 2019, 108, 145-152.	5.5	23
9	Bifurcation structure of localized states in the Lugiato-Lefever equation with anomalous dispersion. Physical Review E, 2018, 97, 042204.	2.1	48
10	Bifurcation structure of periodic patterns in the Lugiato-Lefever equation with anomalous dispersion. Physical Review E, 2018, 98, .	2.1	16
11	Curing Braess's paradox by secondary control in power grids. New Journal of Physics, 2018, 20, 083005.	2.9	20
12	Front interaction induces excitable behavior. Physical Review E, 2017, 95, 020201.	2.1	2
13	Effects of dynamic-demand-control appliances on the power grid frequency. Physical Review E, 2017, 96, 022302.	2.1	22
14	Interaction of solitons and the formation of bound states in the generalized Lugiato-Lefever equation. European Physical Journal D, 2017, 71, 1.	1.3	27
15	Theory and applications of the Lugiato-Lefever Equation. European Physical Journal D, 2017, 71, 1.	1.3	40
16	Coexistence of stable dark- and bright-soliton Kerr combs in normal-dispersion resonators. Physical Review A, 2017, 95, .	2.5	58
17	Fairy circle landscapes under the sea. Science Advances, 2017, 3, e1603262.	10.3	60
18	Origin and stability of dark pulse Kerr combs in normal dispersion resonators. Optics Letters, 2016, 41, 2402.	3.3	89

#	ARTICLE	IF	CITATIONS
19	Dark solitons in the Lugiato-Lefever equation with normal dispersion. <i>Physical Review A</i> , 2016, 93, .	2.5	105
20	Competition between drift and spatial defects leads to oscillatory and excitable dynamics of dissipative solitons. <i>Physical Review E</i> , 2016, 93, 012211.	2.1	5
21	Characterizing the dynamics of cavity solitons and frequency combs in the Lugiato-Lefever equation. , 2016, , .		0
22	Stability Analysis of Dark Pulse Kerr Frequency Combs in Normal Dispersion Optical Microresonators. , 2016, , .		0
23	Origin and stability of dark pulse Kerr frequency combs in normal dispersion microresonators. , 2016, , .		0
24	Theory for the Spatiotemporal Dynamics of Domain Walls close to a Nonequilibrium Ising-Bloch Transition. <i>Physical Review Letters</i> , 2015, 114, 084101.	7.8	10
25	Spatio-temporal stability of 1D Kerr cavity solitons. , 2014, , .		0
26	Effects of inhomogeneities and drift on the dynamics of temporal solitons in fiber cavities and microresonators. <i>Optics Express</i> , 2014, 22, 30943.	3.4	21
27	Minimal model dynamics for twelfefold quasipatterns. <i>Physical Review E</i> , 2014, 89, 032923.	2.1	0
28	Dynamics of localized and patterned structures in the Lugiato-Lefever equation determine the stability and shape of optical frequency combs. <i>Physical Review A</i> , 2014, 89, .	2.5	103
29	Self-localized states in species competition. <i>Physical Review E</i> , 2014, 89, 032724.	2.1	6
30	Third-order chromatic dispersion stabilizes Kerr frequency combs. <i>Optics Letters</i> , 2014, 39, 2971.	3.3	78
31	Modeling Kerr frequency combs using the Lugiato-Lefever equation: a characterization of the multistable landscape. , 2014, , .		1
32	Formation of localized structures in bistable systems through nonlocal spatial coupling. I. General framework. <i>Physical Review E</i> , 2014, 89, 012914.	2.1	26
33	Formation of localized structures in bistable systems through nonlocal spatial coupling. II. The nonlocal Ginzburg-Landau equation. <i>Physical Review E</i> , 2014, 89, 012915.	2.1	23
34	Stabilization of frequency combs using third order dispersion. , 2014, , .		0
35	Observation of laser vortex solitons in a self-focusing semiconductor laser. <i>Journal of Optics (United Kingdom)</i> , 2013, 15, 044011.	2.2	19
36	Observation of vortex soliton states in vertical-cavity surface-emitting lasers with feedback. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
37	Dissipative Soliton Excitability Induced by Spatial Inhomogeneities and Drift. <i>Physical Review Letters</i> , 2013, 110, 064103.	7.8	22
38	Logical operations with localized structures. <i>New Journal of Physics</i> , 2012, 14, 013040.	2.9	28
39	Classical and quantum effects in spatially modulated optical parametric oscillators. <i>European Physical Journal: Special Topics</i> , 2012, 203, 217-225.	2.6	1
40	Tuning quantum correlations with intracavity photonic crystals. <i>Physical Review A</i> , 2011, 84, .	2.5	2
41	Interaction of oscillatory and excitable localized states in a nonlinear optical cavity. , 2011, , 241-264.		0
42	Effects of noise on excitable dissipative solitons. <i>European Physical Journal D</i> , 2010, 59, 37-42.	1.3	4
43	Nonlocality-Induced Front-Interaction Enhancement. <i>Physical Review Letters</i> , 2010, 104, 154101.	7.8	21
44	Vortex solitons in lasers with feedback. <i>Optics Express</i> , 2010, 18, 8859.	3.4	40
45	All Optical Logical Operations Using Excitable Cavity Solitons. , 2010, , .		3
46	Vortex nucleation in Bose-Einstein condensates due to effective magnetic fields. <i>Physical Review A</i> , 2009, 79, .	2.5	13
47	Cavity soliton properties and dynamics in a VCSEL with frequency-filtered feedback. , 2009, , .		0
48	Drifting instabilities of cavity solitons in vertical-cavity surface-emitting lasers with frequency-selective feedback. <i>Physical Review A</i> , 2009, 80, .	2.5	21
49	Control of spatial instabilities with intracavity photonic crystals. , 2009, , .		0
50	Self-localized structures in vertical-cavity surface-emitting lasers with external feedback. <i>Physical Review E</i> , 2008, 78, 016212.	2.1	47
51	Sub-diffraction-limited localized structures: influence of linear non-local interactions. , 2008, , .		0
52	Dynamical instabilities of dissipative solitons in nonlinear optical cavities with nonlocal materials. <i>Physical Review A</i> , 2008, 77, .	2.5	31
53	Effects of a localized beam on the dynamics of excitable cavity solitons. <i>Physical Review A</i> , 2008, 78, .	2.5	16
54	Control of spatial quantum fluctuations using photonic crystals. <i>Proceedings of SPIE</i> , 2008, , .	0.8	0

#	ARTICLE	IF	CITATIONS
55	Spatial Dissipative Solitons with Intra-Cavity Photonic Crystals. , 2007, , .		0
56	Growth laws, pinning and localized structures: an experiment in sodium vapor. , 2007, , .		0
57	Subcritical patterns and dissipative solitons due to intracavity photonic crystals. Physical Review A, 2007, 76, .	2.5	14
58	Impact of nonlocal interactions in dissipative systems: Towards minimal-sized localized structures. Physical Review A, 2007, 75, .	2.5	48
59	Two-Dimensional Front Dynamics and Spatial Solitons in a Nonlinear Optical System. Physical Review Letters, 2007, 99, 153902.	7.8	15
60	Dynamics of hexagonal patterns in a self-focusing Kerr cavity. Physical Review E, 2007, 76, 016217.	2.1	13
61	Elementary excitations of a Bose-Einstein condensate in an effective magnetic field. Physical Review A, 2007, 76, .	2.5	4
62	Phase-space structure of two-dimensional excitable localized structures. Physical Review E, 2007, 75, 026217.	2.1	35
63	Domain wall dynamics: Growth laws, localized structures and stable droplets. European Physical Journal: Special Topics, 2007, 146, 71-86.	2.6	7
64	Bifurcation structure of dissipative solitons. Physica D: Nonlinear Phenomena, 2007, 227, 70-77.	2.8	65
65	Excitability Mediated by Localized Structures in Kerr Cavities. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2007, 3, 349-353.	0.4	0
66	<title>Localized structures in nonlinear optical cavities</title>. , 2006, , .		1
67	Excitability of Localized Structures in Kerr Media. , 2006, , .		0
68	Spontaneous and induced motion of optical patterns. Applied Physics B: Lasers and Optics, 2005, 81, 963-968.	2.2	9
69	Coupled-mode theory for photonic band-gap inhibition of spatial instabilities. Physical Review E, 2005, 72, 016614.	2.1	23
70	Excitability Mediated by Localized Structures in a Dissipative Nonlinear Optical Cavity. Physical Review Letters, 2005, 94, 063905.	7.8	67
71	Bifurcation structure and asymmetric sequences of cavity solitons. , 2005, , .		0
72	Excitability mediated by localized structures. , 2005, , .		0

#	ARTICLE	IF	CITATIONS
73	Stable droplets and nucleation in asymmetric bistable nonlinear optical systems. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, S265-S270.	1.4	12
74	Photonic Band-Gap Inhibition of Modulational Instabilities. Physical Review Letters, 2004, 92, 253904.	7.8	45
75	Secondary bifurcations of hexagonal patterns in a nonlinear optical system: Alkali metal vapor in a single-mirror arrangement. Physical Review E, 2004, 69, 036205.	2.1	9
76	Stable droplets and dark-ring cavity solitons in nonlinear optical devices. IEEE Journal of Quantum Electronics, 2003, 39, 238-244.	1.9	19
77	Transition from hexagons to optical turbulence. Physical Review A, 2003, 68, .	2.5	30
78	Fluctuations and correlations in hexagonal optical patterns. Physical Review E, 2002, 66, 046223.	2.1	13
79	Dynamical properties of two-dimensional Kerr cavity solitons. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 747.	2.1	75
80	Dark ring cavity solitons and stable droplets in models of nonlinear optical cavities. , 2002, , .		0
81	Stable Droplets and Growth Laws Close to the Modulational Instability of a Domain Wall. Physical Review Letters, 2001, 87, 194101.	7.8	54