

# Lendert Gelens

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/1096417/lendert-gelens-publications-by-year.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

84  
papers

1,626  
citations

26  
h-index

37  
g-index

113  
ext. papers

2,184  
ext. citations

4.5  
avg, IF

5.06  
L-index

#	Paper	IF	Citations
84	Bistable, Biphasic Regulation of PP2A-B55 Accounts for the Dynamics of Mitotic Substrate Phosphorylation. <i>Current Biology</i> , <b>2021</b> , 31, 794-808.e6	6.3	5
83	Analytical approximations for the speed of pacemaker-generated waves. <i>Physical Review E</i> , <b>2021</b> , 104, 014220	2.4	
82	A modular approach for modeling the cell cycle based on functional response curves. <i>PLoS Computational Biology</i> , <b>2021</b> , 17, e1009008	5	0
81	Mitotic waves in an import-diffusion model with multiple nuclei in a shared cytoplasm. <i>BioSystems</i> , <b>2021</b> , 208, 104478	1.9	0
80	Dynamic bistable switches enhance robustness and accuracy of cell cycle transitions. <i>PLoS Computational Biology</i> , <b>2021</b> , 17, e1008231	5	6
79	Dynamic bistable switches enhance robustness and accuracy of cell cycle transitions <b>2021</b> , 17, e1008231		
78	Dynamic bistable switches enhance robustness and accuracy of cell cycle transitions <b>2021</b> , 17, e1008231		
77	Dynamic bistable switches enhance robustness and accuracy of cell cycle transitions <b>2021</b> , 17, e1008231		
76	Dynamic bistable switches enhance robustness and accuracy of cell cycle transitions <b>2021</b> , 17, e1008231		
75	Dynamic bistable switches enhance robustness and accuracy of cell cycle transitions <b>2021</b> , 17, e1008231		
74	Dynamic bistable switches enhance robustness and accuracy of cell cycle transitions <b>2021</b> , 17, e1008231		
73	Synchronization in reaction-diffusion systems with multiple pacemakers. <i>Chaos</i> , <b>2020</b> , 30, 053139	3.3	3
72	Co-regulation of the antagonistic RepoMan:Aurora-B pair in proliferating cells. <i>Molecular Biology of the Cell</i> , <b>2020</b> , 31, 419-438	3.5	5
71	Synchronizing an oscillatory medium: The speed of pacemaker-generated waves. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	2
70	Localized structures formed through domain wall locking in cavity-enhanced second-harmonic generation. <i>Optics Letters</i> , <b>2020</b> , 45, 5856-5859	3	0
69	Nuclei determine the spatial origin of mitotic waves. <i>ELife</i> , <b>2020</b> , 9,	8.9	13
68	Mutualistic cross-feeding in microbial systems generates bistability via an Allee effect. <i>Scientific Reports</i> , <b>2020</b> , 10, 7763	4.9	5

67	Eternal sunshine of the spotless cycle. <i>Molecular Systems Biology</i> , <b>2019</b> , 15, e8864	12.2	1
66	Excitable dynamics through toxin-induced mRNA cleavage in bacteria. <i>PLoS ONE</i> , <b>2019</b> , 14, e0212288	3.7	2
65	Coordination of Timers and Sensors in Cell Signaling. <i>BioEssays</i> , <b>2019</b> , 41, e1800217	4.1	3
64	Travelling fronts in time-delayed reaction-diffusion systems. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2019</b> , 377, 20180127	3	4
63	Localized structures in dispersive and doubly resonant optical parametric oscillators. <i>Physical Review E</i> , <b>2019</b> , 100, 032219	2.4	14
62	Frequency comb generation through the locking of domain walls in doubly resonant dispersive optical parametric oscillators. <i>Optics Letters</i> , <b>2019</b> , 44, 2004-2007	3	18
61	Bifurcation Structure of Localized Patterns and Spikes in Dispersive Kerr Cavities <b>2019</b> ,		1
60	Bifurcation structure of localized states in the Lugiato-Lefever equation with anomalous dispersion. <i>Physical Review E</i> , <b>2018</b> , 97, 042204	2.4	30
59	Autoregulation of mazEF expression underlies growth heterogeneity in bacterial populations. <i>Nucleic Acids Research</i> , <b>2018</b> , 46, 2918-2931	20.1	15
58	Exploring the Function of Dynamic Phosphorylation-Dephosphorylation Cycles. <i>Developmental Cell</i> , <b>2018</b> , 44, 659-663	10.2	29
57	The Importance of Kinase-Phosphatase Integration: Lessons from Mitosis. <i>Trends in Cell Biology</i> , <b>2018</b> , 28, 6-21	18.3	50
56	Quadratic soliton combs in doubly resonant second-harmonic generation. <i>Optics Letters</i> , <b>2018</b> , 43, 6033-6036	2.8	
55	Delay models for the early embryonic cell cycle oscillator. <i>PLoS ONE</i> , <b>2018</b> , 13, e0194769	3.7	6
54	Integrated culturing, modeling and transcriptomics uncovers complex interactions and emergent behavior in a three-species synthetic gut community. <i>ELife</i> , <b>2018</b> , 7,	8.9	34
53	Author response: Integrated culturing, modeling and transcriptomics uncovers complex interactions and emergent behavior in a three-species synthetic gut community <b>2018</b> ,		3
52	Bifurcation structure of periodic patterns in the Lugiato-Lefever equation with anomalous dispersion. <i>Physical Review E</i> , <b>2018</b> , 98,	2.4	9
51	Bistability in a system of two species interacting through mutualism as well as competition: Chemostat vs. Lotka-Volterra equations. <i>PLoS ONE</i> , <b>2018</b> , 13, e0197462	3.7	16
50	Front interaction induces excitable behavior. <i>Physical Review E</i> , <b>2017</b> , 95, 020201	2.4	1

49	Desynchronizing Embryonic Cell Division Waves Reveals the Robustness of <i>Xenopus laevis</i> Development. <i>Cell Reports</i> , <b>2017</b> , 21, 37-46	10.6	22
48	Interaction of solitons and the formation of bound states in the generalized Lugiato-Lefever equation. <i>European Physical Journal D</i> , <b>2017</b> , 71, 1	1.3	18
47	An Attachment-Independent Biochemical Timer of the Spindle Assembly Checkpoint. <i>Molecular Cell</i> , <b>2017</b> , 68, 715-730.e5	17.6	42
46	Coexistence of stable dark- and bright-soliton Kerr combs in normal-dispersion resonators. <i>Physical Review A</i> , <b>2017</b> , 95,	2.6	23
45	Computational Methods to Model Persistence. <i>Methods in Molecular Biology</i> , <b>2016</b> , 1333, 207-40	1.4	2
44	Dark solitons in the Lugiato-Lefever equation with normal dispersion. <i>Physical Review A</i> , <b>2016</b> , 93,	2.6	62
43	Competition between drift and spatial defects leads to oscillatory and excitable dynamics of dissipative solitons. <i>Physical Review E</i> , <b>2016</b> , 93, 012211	2.4	4
42	Positive Feedback Keeps Duration of Mitosis Temporally Insulated from Upstream Cell-Cycle Events. <i>Molecular Cell</i> , <b>2016</b> , 64, 362-375	17.6	45
41	Origin and stability of dark pulse Kerr combs in normal dispersion resonators. <i>Optics Letters</i> , <b>2016</b> , 41, 2402-5	3	47
40	Dynamics of Dissipative Solitons in Presence of Inhomogeneities and Drift <b>2015</b> , 107-128		1
39	How Does the <i>Xenopus laevis</i> Embryonic Cell Cycle Avoid Spatial Chaos?. <i>Cell Reports</i> , <b>2015</b> , 12, 892-900	10.6	13
38	Formation of localized structures in bistable systems through nonlocal spatial coupling. I. General framework. <i>Physical Review E</i> , <b>2014</b> , 89, 012914	2.4	23
37	Formation of localized structures in bistable systems through nonlocal spatial coupling. II. The nonlocal Ginzburg-Landau equation. <i>Physical Review E</i> , <b>2014</b> , 89, 012915	2.4	20
36	Spatial trigger waves: positive feedback gets you a long way. <i>Molecular Biology of the Cell</i> , <b>2014</b> , 25, 3486-93		62
35	Effects of inhomogeneities and drift on the dynamics of temporal solitons in fiber cavities and microresonators. <i>Optics Express</i> , <b>2014</b> , 22, 30943-54	3.3	16
34	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> , <b>2014</b> , 89,	2.6	86
33	Third-order chromatic dispersion stabilizes Kerr frequency combs. <i>Optics Letters</i> , <b>2014</b> , 39, 2971-4	3	52
32	Modeling Kerr frequency combs using the Lugiato-Lefever equation: a characterization of the multistable landscape <b>2014</b> ,		1

31	Oscillations and multistability in two semiconductor ring lasers coupled by a single waveguide. <i>Physical Review A</i> , <b>2013</b> , 88,	2.6	6
30	A general model for toxin-antitoxin module dynamics can explain persister cell formation in <i>E. coli</i> . <i>PLoS Computational Biology</i> , <b>2013</b> , 9, e1003190	5	46
29	Dynamics of one-dimensional Kerr cavity solitons. <i>Optics Express</i> , <b>2013</b> , 21, 9180-91	3.3	131
28	Semiconductor ring lasers coupled by a single waveguide. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 251114	3.4	7
27	Semiconductor ring lasers as optical neurons <b>2012</b> ,		2
26	Direct modulation of semiconductor ring lasers: numerical and asymptotic analysis. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2012</b> , 29, 1983	1.7	9
25	Square-wave oscillations in semiconductor ring lasers with delayed optical feedback. <i>Optics Express</i> , <b>2012</b> , 20, 22503-16	3.3	29
24	Cavity soliton oscillations in a one-dimensional fiber resonator <b>2012</b> ,		1
23	Dark localized structures in a cavity filled with a left-handed material. <i>Physical Review A</i> , <b>2011</b> , 84,	2.6	18
22	Cavity solitons and localized patterns in a finite-size optical cavity. <i>Physical Review A</i> , <b>2011</b> , 84,	2.6	8
21	Solitary and coupled semiconductor ring lasers as optical spiking neurons. <i>Physical Review E</i> , <b>2011</b> , 84, 036209	2.4	72
20	Traveling waves and defects in the complex Swift-Hohenberg equation. <i>Physical Review E</i> , <b>2011</b> , 84, 056203	2.0	8
19	Nonlocality-induced front-interaction enhancement. <i>Physical Review Letters</i> , <b>2010</b> , 104, 154101	7.4	20
18	Excitability in semiconductor microring lasers: Experimental and theoretical pulse characterization. <i>Physical Review A</i> , <b>2010</b> , 82,	2.6	26
17	Analysis of multistability in semiconductor ring lasers <b>2010</b> ,		1
16	Optical injection in semiconductor ring lasers. <i>Physical Review A</i> , <b>2010</b> , 81,	2.6	27
15	High-order dispersion stabilizes dark dissipative solitons in all-fiber cavities. <i>Optics Letters</i> , <b>2010</b> , 35, 306-8	3	67
14	Multistable and excitable behavior in semiconductor ring lasers with broken Z2-symmetry. <i>European Physical Journal D</i> , <b>2010</b> , 58, 197-207	1.3	16

13	Coarsening and frozen faceted structures in the supercritical complex Swift-Hohenberg equation. <i>European Physical Journal D</i> , <b>2010</b> , 59, 23-36	1.3	6
12	Excitability in optical systems close to Z2-symmetry. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2010</b> , 374, 739-743	2.3	34
11	Faceting and coarsening dynamics in the complex Swift-Hohenberg equation. <i>Physical Review E</i> , <b>2009</b> , 80, 046221	2.4	4
10	Asymptotic approach to the analysis of mode-hopping in semiconductor ring lasers. <i>Physical Review A</i> , <b>2009</b> , 80,	2.6	2
9	Phase-space approach to directional switching in semiconductor ring lasers. <i>Physical Review E</i> , <b>2009</b> , 79, 016213	2.4	20
8	Exploring multistability in semiconductor ring lasers: theory and experiment. <i>Physical Review Letters</i> , <b>2009</b> , 102, 193904	7.4	49
7	Optical injection in semiconductor ring lasers: backfire dynamics. <i>Optics Express</i> , <b>2008</b> , 16, 10968-74	3.3	12
6	Two-dimensional phase-space analysis and bifurcation study of the dynamical behaviour of a semiconductor ring laser. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , <b>2008</b> , 41, 095402	1.3	33
5	Dynamical instabilities of dissipative solitons in nonlinear optical cavities with nonlocal materials. <i>Physical Review A</i> , <b>2008</b> , 77,	2.6	26
4	Topological insight into the non-arrhenius mode hopping of semiconductor ring lasers. <i>Physical Review Letters</i> , <b>2008</b> , 101, 093903	7.4	31
3	Dissipative structures in left-handed material cavity optics. <i>Chaos</i> , <b>2007</b> , 17, 037116	3.3	31
2	Impact of nonlocal interactions in dissipative systems: Towards minimal-sized localized structures. <i>Physical Review A</i> , <b>2007</b> , 75,	2.6	39
1	Origin, bifurcation structure and stability of localized states in Kerr dispersive optical cavities. <i>IMA Journal of Applied Mathematics</i> ,	1	2