

T Ackemann

List of Publications by Year in descending order

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119
papers

2,647
citations

185998

28
h-index

223531

46
g-index

119
all docs

119
docs citations

119
times ranked

925
citing authors

#	ARTICLE	IF	CITATIONS
1	Ground-state coherence versus orientation: Competing mechanisms for light-induced magnetic self-organization in cold atoms. <i>Physical Review A</i> , 2022, 105, .	1.0	1
2	Dynamics of optomechanical droplets in a Bose-Einstein condensate. <i>Physical Review A</i> , 2022, 105, .	1.0	2
3	Coupling of magnetic and optomechanical structuring in cold atoms. <i>Physical Review A</i> , 2022, 105, .	1.0	1
4	Spontaneous atomic crystallization via diffractive dephasing in optical cavities. <i>Journal of Physics: Conference Series</i> , 2021, 1919, 012014.	0.3	1
5	Inversion-symmetry breaking in spin patterns by a weak magnetic field. <i>Physical Review A</i> , 2019, 99, .	1.0	7
6	Spontaneous light-mediated magnetism in cold atoms. <i>Communications Physics</i> , 2018, 1, .	2.0	17
7	Magnetic phase diagram of light-mediated spin structuring in cold atoms. <i>Optica</i> , 2018, 5, 1322.	4.8	13
8	Spontaneous Light-mediated Magnetism in Cold Atoms. , 2018, , .		0
9	Spontaneous Formation of Vector Vortex Beams in Vertical-Cavity Surface-Emitting Lasers with Feedback. <i>Physical Review Letters</i> , 2017, 119, 113902.	2.9	22
10	Thick-medium model of transverse pattern formation in optically excited cold two-level atoms with a feedback mirror. <i>Physical Review A</i> , 2017, 96, .	1.0	13
11	Temperature dependence of spontaneous switch-on and switch-off of laser cavity solitons in vertical-cavity surface-emitting lasers with frequency-selective feedback. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 095110.	1.3	4
12	Optical pattern formation with a two-level nonlinearity. <i>Physical Review A</i> , 2015, 92, .	1.0	20
13	Arrest of Domain Coarsening via Antiperiodic Regimes in Delay Systems. <i>Physical Review Letters</i> , 2015, 115, 203901.	2.9	28
14	Quantum Threshold for Optomechanical Self-Structuring in a Bose-Einstein Condensate. <i>Physical Review Letters</i> , 2015, 114, 173903.	2.9	33
15	Nonlinear Optomechanical Patterns and Dissipative Solitons. , 2014, , .		0
16	Optomechanical self-structuring in a cold atomic gas. <i>Nature Photonics</i> , 2014, 8, 321-325.	15.6	87
17	Kinetic Theory for Transverse Optomechanical Instabilities. <i>Physical Review Letters</i> , 2014, 112, 043901.	2.9	24
18	On the thermal dependence of the generation of terahertz radiation by photomixing. <i>Semiconductor Science and Technology</i> , 2014, 29, 035006.	1.0	2

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19	Self-organization in cold atomic gases: a synchronization perspective. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20140002.	1.6	8
20	Vortex Solitons and Azimuthons in Vertical-Cavity Surface-Emitting Lasers with Feedback. , 2014, , .		1
21	Optomechanical self-organization in cold atomic gases. , 2013, , .		0
22	Locking of laser cavity solitons trapped by defects in VCSELs. , 2013, , .		0
23	Observation of laser vortex solitons in a self-focusing semiconductor laser. Journal of Optics (United Kingdom), 2013, 15, 044011.	1.0	19
24	Dissipative solitons in the coupled dynamics of light and cold atoms. Optics Express, 2013, 21, 26144.	1.7	18
25	Observation of vortex soliton states in vertical-cavity surface-emitting lasers with feedback. , 2013, , .		0
26	Disorder mapping in VCSELs using frequency-selective feedback. Optics Letters, 2012, 37, 1079.	1.7	11
27	Adler Synchronization of Spatial Laser Solitons Pinned by Defects. Physical Review Letters, 2012, 108, 213904.	2.9	5
28	Diamond heat sinking of terahertz antennas for continuous-wave photomixing. Journal of Applied Physics, 2012, 112, 123109.	1.1	6
29	Spontaneous optomechanical pattern formation in cold atoms. Physical Review A, 2012, 86, .	1.0	29
30	High density InAlAs/GaAlAs quantum dots for non-linear optics in microcavities. Journal of Applied Physics, 2012, 111, 043107.	1.1	6
31	Frequency and Phase Locking of Laser Cavity Solitons. Progress in Optical Science and Photonics, 2012, , 49-87.	0.3	3
32	Solitons in semiconductor microcavities. Nature Photonics, 2012, 6, 204-204.	15.6	8
33	Analysis of spatial emission structures in vertical-cavity surface-emitting lasers with feedback from a volume Bragg grating. Physical Review A, 2012, 85, .	1.0	6
34	Nonlinear Optics and Saturation Behavior of Quantum Dot Samples Under Continuous Wave Driving. , 2012, , 251-295.		1
35	Ultrafast spin-induced polarization oscillations with tunable lifetime in vertical-cavity surface-emitting lasers. Applied Physics Letters, 2011, 99, 151107.	1.5	86
36	Switching spatial dissipative solitons in a VCSEL with frequency selective feedback. European Physical Journal D, 2010, 59, 121-131.	0.6	16

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37	Saturation of absorption and gain in a quantum dot diode with continuous-wave driving. Applied Physics Letters, 2010, 97, .	1.5	8
38	Polarization properties in the transition from below to above lasing threshold in broad-area vertical-cavity surface-emitting lasers. Physical Review A, 2010, 81, .	1.0	5
39	Birefringence controlled room-temperature picosecond spin dynamics close to the threshold of vertical-cavity surface-emitting laser devices. Applied Physics Letters, 2010, 97, .	1.5	50
40	Vortex solitons in lasers with feedback. Optics Express, 2010, 18, 8859.	1.7	40
41	Control of the spatial emission structure of broad-area vertical-cavity surface-emitting lasers by feedback. Journal Physics D: Applied Physics, 2009, 42, 055101.	1.3	10
42	Length scales and polarization properties of annular standing waves in circular broad-area vertical-cavity surface-emitting lasers. Applied Physics B: Lasers and Optics, 2009, 97, 397-403.	1.1	9
43	Analysis of polarization states of broad-area vertical-cavity surface-emitting lasers below and above threshold. , 2009, , .		1
44	Saturation and self-lensing in self-assembled quantum dots with constant-wave driving. Physical Review B, 2009, 80, .	1.1	5
45	Analysis and optimization of coupling to external cavities in feedback experiments with vertical-cavity surface-emitting lasers. Optics Communications, 2008, 281, 1396-1400.	1.0	0
46	Coupling of Polarization and Spatial Degrees of Freedom of Highly Divergent Emission in Broad-Area Square Vertical-Cavity Surface-Emitting Lasers. Physical Review Letters, 2008, 100, 213901.	2.9	24
47	Self-localized structures in vertical-cavity surface-emitting lasers with external feedback. Physical Review E, 2008, 78, 016212.	0.8	47
48	All-optical delay line using semiconductor cavity solitons. Applied Physics Letters, 2008, 92, .	1.5	106
49	Characteristics of cavity solitons and drifting excitations in broad-area vertical-cavity surface-emitting lasers with frequency-selective feedback. Physical Review A, 2008, 78, .	1.0	29
50	Optical spin manipulation of electrically pumped vertical-cavity surface-emitting lasers. Applied Physics Letters, 2008, 92, 041118.	1.5	73
51	Realization of a Semiconductor-Based Cavity Soliton Laser. Physical Review Letters, 2008, 100, 013907.	2.9	148
52	Two-Dimensional Front Dynamics and Spatial Solitons in a Nonlinear Optical System. Physical Review Letters, 2007, 99, 153902.	2.9	15
53	Localized traveling waves in vertical-cavity surface-emitting lasers with frequency-selective optical feedback. Physical Review E, 2007, 75, 056208.	0.8	26
54	Bistability conditions between lasing and non-lasing states for vertical-cavity surface-emitting lasers with frequency-selective optical feedback. Proceedings of SPIE, 2007, , .	0.8	1

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55	Characteristics of switching dynamics in a semiconductor-based cavity-soliton laser. Optics Express, 2007, 15, 16773.	1.7	14
56	Nonlinear lensing mechanisms in a cloud of cold atoms. European Physical Journal D, 2007, 41, 337-348.	0.6	6
57	Tunable, narrow-band light source in the 1.25 μ m region based on broad-area quantum dot lasers with feedback. Applied Physics B: Lasers and Optics, 2007, 89, 585-588.	1.1	13
58	Competition of pattern forming instabilities due to phase front curvature in an optical system. Physical Review E, 2006, 73, 016215.	0.8	0
59	Characteristics of bistable localized emission states in broad-area vertical-cavity surface-emitting lasers with frequency-selective feedback. Physical Review A, 2006, 74, .	1.0	21
60	Transverse patterns and length-scale selection in vertical-cavity surface-emitting lasers with a large square aperture. Applied Physics B: Lasers and Optics, 2005, 81, 945-953.	1.1	23
61	On the response of an oscillatory medium to defect generation. Applied Physics B: Lasers and Optics, 2005, 81, 969-973.	1.1	0
62	Observation of a Discrete Family of Dissipative Solitons in a Nonlinear Optical System. Physical Review Letters, 2005, 95, 143906.	2.9	21
63	Observation of a Discrete Family of Dissipative Solitons in the Presence of a Symmetry-breaking Bifurcation. , 2005, , .		0
64	Transverse Solitons on a Dynamical Spiral Background. , 2005, , .		0
65	Eigenmodes and symmetry selection mechanisms in circular large-aperture vertical-cavity surface-emitting lasers. Physical Review E, 2004, 69, 066205.	0.8	16
66	Polarization Switching to the Gain Disfavored Mode in Vertical-Cavity Surface-Emitting Lasers. IEEE Journal of Quantum Electronics, 2004, 40, 97-104.	1.0	43
67	Vectorial solitons and higher-order localized states in a single-mirror feedback system. , 2004, , .		1
68	Influence of inhomogeneities on wavelength selection of flower-like patterns in wide-aperture lasers. , 2004, , .		1
69	Optical target and spiral patterns in a single-mirror feedback scheme. Applied Physics B: Lasers and Optics, 2003, 76, 191-197.	1.1	16
70	Polarization dynamics and low-frequency fluctuations in vertical-cavity surface-emitting lasers subjected to optical feedback. Applied Physics B: Lasers and Optics, 2003, 77, 739-746.	1.1	21
71	Properties of feedback solitons in a single-mirror experiment. IEEE Journal of Quantum Electronics, 2003, 39, 227-237.	1.0	18
72	Secondary bifurcations and transverse standing-wave patterns in anisotropic microcavity lasers close to the first laser threshold. Physical Review A, 2003, 67, .	1.0	8

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73	Low-frequency fluctuations and polarization dynamics in vertical-cavity surface-emitting lasers with isotropic feedback. <i>Physical Review A</i> , 2003, 67, .	1.0	39
74	Description and analysis of low-frequency fluctuations in vertical-cavity surface-emitting lasers with isotropic optical feedback by a distant reflector. <i>Physical Review A</i> , 2003, 68, .	1.0	28
75	Direct measurement of multiple instability regions via a Fourier filtering method in an optical pattern forming system. <i>Physical Review E</i> , 2003, 68, 016209.	0.8	10
76	Self-organized superlattice patterns with two slightly differing wave numbers. <i>Physical Review E</i> , 2003, 67, 025203.	0.8	12
77	Two-frequency emission and polarization dynamics at lasing threshold in vertical-cavity surface-emitting lasers. <i>Physical Review A</i> , 2003, 68, .	1.0	53
78	Eightfold quasipatterns in an optical pattern-forming system. <i>Physical Review E</i> , 2002, 66, 046220.	0.8	17
79	Robust control of switching of localized structures and its dynamics in a single-mirror feedback scheme. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2002, 19, 707.	0.9	20
80	Optical pattern formation in alkali metal vapors: Mechanisms, phenomena and use. <i>Applied Physics B: Lasers and Optics</i> , 2001, 72, 21-34.	1.1	75
81	The Gouy phase shift, the average phase lag of Fourier components of Hermiteâ€“Gaussian modes and their application to resonance conditions in optical cavities. <i>Optics Communications</i> , 2001, 189, 5-14.	1.0	24
82	TRANSITION TO SPATIOTEMPORALLY IRREGULAR STATES IN A SINGLE-MIRROR FEEDBACK SYSTEM. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2001, 11, 2789-2807.	0.7	9
83	Polarization degrees of freedom in optical pattern forming systems: alkali metal vapour in a single-mirror arrangement. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2001, 3, S124-S132.	1.4	14
84	Characteristics of polarization switching from the low to the high frequency mode in vertical-cavity surface-emitting lasers. <i>Applied Physics Letters</i> , 2001, 78, 3574-3576.	1.5	93
85	Localized Structures, Optical Bistability and Pattern Forming Instabilities in a Single-Mirror Feedback Scheme. , 2001, , .		0
86	Patterns in Broad-Area Microcavities. <i>Physica Status Solidi (B): Basic Research</i> , 2000, 221, 133-136.	0.7	8
87	Spatial mode structure of bottom-emitting broad-area vertical-cavity surface-emitting lasers. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2000, 2, 406-412.	1.4	35
88	Pattern formation in the presence of an intrinsic polarization instability. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2000, 2, 386-392.	1.4	20
89	Magnetic field control over microscopic symmetry properties of an optical pattern-forming system: theory. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2000, 2, 426-431.	1.4	6
90	Magnetic field control over microscopic symmetry properties of an optical pattern-forming system: experiment. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2000, 2, 421-425.	1.4	8

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91	Stationary and drifting localized structures near a multiple bifurcation point. <i>Physical Review E</i> , 2000, 61, 4622-4625.	0.8	16
92	Interaction of Localized Structures in an Optical Pattern-Forming System. <i>Physical Review Letters</i> , 2000, 85, 748-751.	2.9	200
93	Spatial structure of broad-area vertical-cavity regenerative amplifiers. <i>Optics Letters</i> , 2000, 25, 814.	1.7	34
94	Investigations of pattern forming mechanisms by Fourier filtering: properties of hexagons and the transition to stripes in an anisotropic system. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 1999, 1, 70-76.	1.4	37
95	Spatial solitons in a single-mirror feedback system. , 1999, , WC1.		1
96	Nonequilateral drifting hexagons in a strongly misaligned single-mirror system. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 1999, 1, 58-63.	1.4	4
97	Interplay of dispersion and absorption in a new optical pattern-forming system. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 1999, 1, 166-170.	1.4	12
98	Modulational instability and beam splitting in the nonlinear light propagation in sodium vapour. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 1999, 1, 90-95.	1.4	3
99	Observing Pattern Dynamics in Nonlinear Optical Systems Using the Video-sampling Method. <i>Chaos, Solitons and Fractals</i> , 1999, 10, 675-679.	2.5	5
100	Twelvefold Quasiperiodic Patterns in a Nonlinear Optical System with Continuous Rotational Symmetry. <i>Physical Review Letters</i> , 1999, 82, 4627-4630.	2.9	49
101	Polarization dynamics in vertical-cavity surface-emitting lasers with optical feedback: experiment and model. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1999, 16, 2114.	0.9	73
102	Self-lensing in sodium vapor: influence of saturation, atomic diffusion and radiation trapping. <i>Optics Communications</i> , 1998, 147, 411-428.	1.0	14
103	Fabry-Pérot and ring cavity configurations and transverse optical patterns. <i>Journal of Modern Optics</i> , 1998, 45, 1913-1926.	0.6	11
104	Polarization patterns in alkaline vapours. <i>Quantum and Semiclassical Optics: Journal of the European Optical Society Part B</i> , 1998, 10, R23-R36.	1.0	11
105	Interaction between Hopf and static instabilities in a pattern-forming optical system. <i>Physical Review E</i> , 1998, 58, 1654-1661.	0.8	16
106	Selection rules for transverse-mode excitation in nonlinear ring and Fabry-Perot resonators. <i>Physical Review A</i> , 1998, 57, 4026-4033.	1.0	1
107	Winking hexagons. <i>Europhysics Letters</i> , 1997, 38, 583-588.	0.7	19
108	Subhexagons and ultrahexagons as a result of a secondary instability. <i>Physical Review A</i> , 1997, 55, 4538-4544.	1.0	16

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109	Light-shift-induced level crossing and resonatorless optical bistability in sodium vapor. <i>Physical Review A</i> , 1997, 56, 2321-2326.	1.0	41
110	Drift instability and locking behavior of optical patterns. <i>Physical Review A</i> , 1997, 56, R4401-R4404.	1.0	24
111	Polarized patterns in sodium vapor with single mirror feedback. <i>Physical Review A</i> , 1997, 56, R1709-R1712.	1.0	31
112	Spontaneous optical patterns in an atomic vapor: observation and simulation. <i>Physica D: Nonlinear Phenomena</i> , 1996, 96, 230-241.	1.3	27
113	Phase singularities via nonlinear beam propagation in sodium vapor. <i>Optics Communications</i> , 1995, 115, 339-346.	1.0	34
114	Transition between Positive and Negative Hexagons in Optical Pattern Formation. <i>Physical Review Letters</i> , 1995, 75, 3450-3453.	2.9	79
115	Non- and nearly hexagonal patterns in sodium vapor generated by single-mirror feedback. <i>Physical Review A</i> , 1994, 50, R4468-R4471.	1.0	55
116	Transverse structures in a sodium-filled Fabry-Pérot resonator. I. Experimental results: Symmetries and the role of the incoupling conditions. <i>Chaos, Solitons and Fractals</i> , 1994, 4, 1409-1431.	2.5	11
117	Transverse structures in a sodium-filled Fabry-Pérot resonator. II. Interpretation of experimental results. <i>Chaos, Solitons and Fractals</i> , 1994, 4, 1433-1449.	2.5	9
118	Interplay of linear and nonlinear effects in the formation of optical vortices in a nonlinear resonator. <i>Physical Review A</i> , 1993, 48, R4043-R4046.	1.0	15
119	Dissipative Solitons in Pattern-Forming Nonlinear Optical Systems: Cavity Solitons and Feedback Solitons. , 0, , 55-100.		11