Andrei G Vladimirov

List of Publications by Year
in descending order

144	3,162	117625	175258
papers	citations	34 h-index	52 g-index

145	145	145	1164
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Model for passive mode locking in semiconductor lasers. Physical Review A, 2005, 72, .	2.5	265
2	Global Coupling with Time Delay in an Array of Semiconductor Lasers. Physical Review Letters, 2000, 85, 3809-3812.	7.8	187
3	Two-dimensional clusters of solitary structures in driven optical cavities. Physical Review E, 2002, 65, 046606.	2.1	101
4	Localized structures in dissipative media: from optics to plant ecology. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20140101.	3.4	96
5	Effect of frequency detunings and finite relaxation rates on laser localized structures. Physical Review E, 2000, 61, 5814-5824.	2.1	93
6	Delay differential equations for mode-locked semiconductor lasers. Optics Letters, 2004, 29, 1221.	3.3	92
7	Spontaneous Motion of Cavity Solitons Induced by a Delayed Feedback. Physical Review Letters, 2009, 103, 103904.	7.8	85
8	Delay-induced dynamics and jitter reduction of passively mode-locked semiconductor lasers subject to optical feedback. New Journal of Physics, 2012, 14, 113033.	2.9	83
9	40ÂGHz Mode-Locked Semiconductor Lasers: Theory, Simulations and Experiment. Optical and Quantum Electronics, 2006, 38, 495-512.	3.3	76
10	Model for mode locking in quantum dot lasers. Applied Physics Letters, 2006, 88, 201102.	3.3	69
11	Long-Range Interaction and Synchronization of Oscillating Dissipative Solitons. Physical Review Letters, 2012, 108, 263906.	7.8	68
12	Dynamics of Fourier domain mode-locked lasers. Optics Express, 2013, 21, 19240.	3.4	66
13	Vortex Induced Rotation of Clusters of Localized States in the Complex Ginzburg-Landau Equation. Physical Review Letters, 2002, 89, 044101.	7.8	62
14	Solitary-wave solutions for few-cycle optical pulses. Physical Review A, 2008, 77, .	2.5	58
15	Numerical investigation of laser localized structures. Journal of Optics B: Quantum and Semiclassical Optics, 1999, 1, 101-106.	1.4	57
16	Control and removal of modulational instabilities in low-dispersion photonic crystal fiber cavities. Optics Letters, 2007, 32, 662.	3.3	53
17	Topologically multicharged and multihumped rotating solitons in wide-aperture lasers with a saturable absorber. IEEE Journal of Quantum Electronics, 2003, 39, 197-205.	1.9	51
18	Numerical Study of Dynamical Regimes in a Monolithic Passively Mode-Locked Semiconductor Laser. IEEE Journal of Quantum Electronics, 2009, 45, 462-468.	1.9	48

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19	Bragg localized structures in a passive cavity with transverse modulation of the refractive index and the pump. Optics Express, 2006, 14, 1.	3.4	45
20	Hybrid mode-locking in a 40 GHz monolithic quantum dot laser. Applied Physics Letters, 2010, 96, .	3.3	45
21	Interaction and stability of periodic and localized structures in optical bistable systems. IEEE Journal of Quantum Electronics, 2003, 39, 216-226.	1.9	44
22	Dynamics of a semiconductor laser array with delayed global coupling. Physical Review E, 2001, 64, 016613.	2.1	43
23	Stripe-array diode-laser in an off-axis external cavity: Theory and experiment. Optics Express, 2009, 17, 19599.	3.4	43
24	A new model for a mode-locked semiconductor laser. Radiophysics and Quantum Electronics, 2004, 47, 769-776.	0.5	42
25	Hybrid Mode Locking in Semiconductor Lasers: Simulations, Analysis, and Experiments. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 1100208-1100208.	2.9	41
26	Stable bound states of one-dimensional autosolitons in a bistable laser. Physical Review E, 2001, 63, 056607.	2.1	40
27	Synchronization of weakly stable oscillators and semiconductor laser arrays. Europhysics Letters, 2003, 61, 613-619.	2.0	39
28	Effect of Cherenkov radiation on localized-state interaction. Physical Review A, 2018, 97, .	2.5	38
29	Internal oscillations of solitons in two-dimensional NLS equation with nonlocal nonlinearity. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 293, 45-49.	2.1	37
30	Relative stability of multipeak localized patterns of cavity solitons. Physical Review A, 2011, 84, .	2.5	37
31	Dynamics of a short cavity swept source OCT laser. Optics Express, 2014, 22, 18177.	3.4	36
32	Timing jitter of passively-mode-locked semiconductor lasers subject to optical feedback: A semi-analytic approach. Physical Review A, 2015, 92, .	2.5	36
33	Stability of the mode-locked regime in quantum dot lasers. Applied Physics Letters, 2007, 91, .	3.3	35
34	Optically injected mode-locked laser. Physical Review E, 2011, 83, 066202.	2.1	35
35	Pulse interaction via gain and loss dynamics in passive mode locking. Physica D: Nonlinear Phenomena, 2006, 218, 95-104.	2.8	34
36	Dispersive Time-Delay Dynamical Systems. Physical Review Letters, 2017, 118, 193901.	7.8	33

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37	Chaotic bound state of localized structures in the complex Ginzburg-Landau equation. Physical Review E, 2007, 75, 045601.	2.1	32
38	Delayed feedback control of self-mobile cavity solitons. Physical Review A, 2013, 88, .	2.5	32
39	Delay feedback induces a spontaneous motion of two-dimensional cavity solitons in driven semiconductor microcavities. Physical Review A, 2012, 86, .	2.5	31
40	Dynamical regimes in a monolithic passively mode-locked quantum dot laser. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 2102.	2.1	30
41	A model equation for ultrashort optical pulses around the zero dispersion frequency. European Physical Journal D, 2010, 58, 219-226.	1.3	28
42	Pulse Broadening in Quantum-Dot Mode-Locked Semiconductor Lasers: Simulation, Analysis, and Experiments. IEEE Journal of Quantum Electronics, 2011, 47, 935-943.	1.9	27
43	Q-switching instability in a mode-locked semiconductor laser. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 663.	2.1	26
44	Multidimensional quasiperiodic antiphase dynamics. Physical Review E, 1999, 60, 1616-1629.	2.1	25
45	Semiconductor mode-locked lasers with coherent dual-mode optical injection: simulations, analysis, and experiment. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 351.	2.1	23
46	Bifurcation analysis of laser autosolitons. Quantum Electronics, 1997, 27, 949-952.	1.0	22
47	Modulational instability of discrete solitons in coupled waveguides with group velocity dispersion. Optics Express, 2006, 14, 12347.	3.4	19
48	Strong pulse asymmetry in quantum-dot mode-locked semiconductor lasers. Applied Physics Letters, 2011, 98, .	3.3	19
49	Conditions for the existence of laser bullets. Optics and Spectroscopy (English Translation of Optika) Tj ETQq1 1 0.784314 rgBT /Ove	0.6	18
50	Effect of dynamical instability on timing jitter in passively mode-locked quantum-dot lasers. Optics Letters, 2014, 39, 6815.	3.3	18
51	Cavity solitons in vertical-cavity surface-emitting lasers. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20140013.	3.4	18
52	Analysis of the stability of laser solitons. Quantum Electronics, 1998, 28, 55-57.	1.0	17
53	Chaotic soliton walk in periodically modulated media. Physical Review E, 2008, 77, 065201.	2.1	17
54	Localized Beating between Dynamically Generated Frequencies. Physical Review Letters, 2009, 102, 043905.	7.8	17

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55	Pulse repetition-frequency multiplication in a coupled cavity passively mode-locked semiconductor lasers. Applied Physics B: Lasers and Optics, 2015, 118, 539-548.	2.2	17
56	Tunable Kerr frequency combs and temporal localized states in time-delayed Giresâ€“Tournois interferometers. Optics Letters, 2019, 44, 4925.	3.3	17
57	Low-intensity chaotic operations of a laser with a saturable absorber. Optics Communications, 1993, 100, 351-360.	2.1	16
58	Curvature Instability in Passive Diffractive Resonators. Physical Review Letters, 2002, 89, 233901.	7.8	15
59	Experimental investigations on the suppression of Q switching in monolithic 40GHz mode-locked semiconductor lasers. Applied Physics Letters, 2006, 88, 221104.	3.3	15
60	Theoretical Investigation of Striped and Non-Striped Broad Area Lasers With Off-Axis Feedback. IEEE Journal of Quantum Electronics, 2012, 48, 353-360.	1.9	15
61	Impact of time-delayed feedback on spatiotemporal dynamics in the Lugiato-Lefever model. Physical Review A, 2016, 93, .	2.5	15
62	Multi-stability and polariton solitons in microcavity wires. Optics Letters, 2015, 40, 1787.	3.3	14
63	Spontaneous motion of localized structures and localized patterns induced by delayed feedback. European Physical Journal D, 2010, 59, 59-65.	1.3	13
64	Bistability and hysteresis in an optically injected two-section semiconductor laser. Physical Review E, 2014, 89, 052903.	2.1	13
65	Bound Pulse Trains in Arrays of Coupled Spatially Extended Dynamical Systems. Physical Review Letters, 2017, 119, 163901.	7.8	13
66	Dissipative soliton interaction in Kerr resonators with high-order dispersion. Physical Review A, 2021, 103, .	2.5	13
67	Bifurcation analysis of a bidirectional class B ring laser. Optics Communications, 1998, 149, 67-72.	2.1	12
68	The Complex Lorenz Model: Geometric Structure, Homoclinic Bifurcation and One-Dimensional Map. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1998, 08, 723-729.	1.7	12
69	Stability of Plane Wave Solutions in Complex Ginzburg--Landau Equation with Delayed Feedback. SIAM Journal on Applied Dynamical Systems, 2014, 13, 986-1009.	1.6	12
70	Convective Nozaki-Bekki holes in a long cavity OCT laser. Optics Express, 2019, 27, 16395.	3.4	12
71	Dynamical regimes of a multistripe laser array with external off-axis feedback. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 1606.	2.1	11
72	Modulational instability and zigzagging of dissipative solitons induced by delayed feedback. Physical Review A, 2016, 93, .	2.5	11

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73	Spontaneous phase symmetry breaking due to cavity detuning in a class-A bidirectional ring laser. Optics Communications, 1995, 116, 109-115.	2.1	10
74	Symmetry breaking and dynamical independence in a multimode laser. Physical Review E, 2000, 62, 6312-6317.	2.1	9
75	Bistable regimes in an optically injected mode-locked laser. Optics Express, 2012, 20, 25572.	3.4	9
76	Light bullets in a time-delay model of a wide-aperture mode-locked semiconductor laser. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170372.	3.4	9
77	Temporal cavity solitons in a delayed model of a dispersive cavity ring laser. Mathematical Modelling of Natural Phenomena, 2020, 15, 47.	2.4	9
78	Nonlinear dynamics in a single mode three-level laser without inversion. Physical Review E, 1998, 57, 1499-1510.	2.1	8
79	Interaction between vegetation patches and gaps: A self-organized response to water scarcity. Physica D: Nonlinear Phenomena, 2020, 414, 132708.	2.8	8
80	Generalized Haus master equation model for mode-locked class- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>B</mml:mi></mml:math> lasers. Physical Review E, 2021, 104, 014215.	2.1	8
81	Stable autosolitons in dispersive media with saturable gain and absorption. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 274, 111-116.	2.1	7
82	Dynamics of a class- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>A</mml:mi></mml:math> nonlinear mirror mode-locked laser. Physical Review E, 2019, 100, 012216.	2.1	7
83	Intracavity second-harmonic generation: The steady-state solutions. Physical Review A, 1998, 58, 3320-3327.	2.5	6
84	Stability of weakly nonparaxial spatial optical solitons in a medium with a Kerr nonlinearity. Journal of Experimental and Theoretical Physics, 2000, 91, 1130-1140.	0.9	6
85	Phase and amplitude dynamics of the TEM10and TEM01modes in a class-B laser. Quantum Electronics, 1997, 27, 892-896.	1.0	5
86	Properties of the phase space and bifurcations in the complex Lorenz model. Technical Physics, 1998, 43, 877-884.	0.7	5
87	Locking characteristics of a 40-GHz hybrid mode-locked monolithic quantum dot laser. , 2010, , .		5
88	Rotational symmetry breaking in small-area circular vertical cavity surface emitting lasers. Optics Communications, 2011, 284, 1299-1302.	2.1	5
89	Delayed feedback control of self-mobile cavity solitons in a wide-aperture laser with a saturable absorber. Chaos, 2017, 27, 114304.	2.5	5
90	Delay-differential-equation model for mode-locked lasers based on nonlinear optical and amplifying loop mirrors. Physical Review A, 2021, 104, .	2.5	5

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91	Turbulent coherent structures in a long cavity semiconductor laser near the lasing threshold. Optics Letters, 2020, 45, 4903.	3.3	5
92	Traveling wave modeling, simulation, and analysis of quantum-dot mode-locked semiconductor lasers. Proceedings of SPIE, 2010, , .	0.8	4
93	Orthogonally polarized frequency combs in a mode-locked VECSEL. Optics Letters, 2020, 45, 252.	3.3	4
94	Short- and long-range temporal cavity soliton interaction in delay models of mode-locked lasers. Physical Review E, 2022, 105, 044207.	2.1	4
95	Stability and oscillations of two-dimensional solitons described by the perturbed nonlinear SchrÃ¶dinger equation. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2000, 89, 731-736.	0.6	3
96	Delay induces motion of multipeak localized structures in cavity semiconductors. , 2012, , .		3
97	Theoretical analysis of a multi-stripe laser array with external off-axis feedback. , 2012, , .		3
98	Bifurcation structure of a swept-source laser. Physical Review E, 2020, 101, 012212.	2.1	3
99	Dynamic instabilities in the interaction of transverse modes in a class-B laser. Quantum Electronics, 1997, 27, 887-891.	1.0	2
100	Stability of the modelocking regime in quantum dot laser. , 2007, , .		2
101	Delay differential models in multimode laser dynamics: taking chromatic dispersion into account. , 2016, , .		2
102	Dynamics of an inhomogeneously broadened passively mode-locked laser. European Physical Journal B, 2019, 92, 1.	1.5	2
103	Oscillating and rotating states for laser solitons. , 2002, 4751, 471.		1
104	Hybrid mode-locking in a 40 GHz monolithic quantum dot laser. , 2009, , .		1
105	Dynamics of couple mode-locked quantum dot semiconductor laser. , 2011, , .		1
106	Theoretical analysis of passively mode-locked inhomogeneously broadened lasers. , 2014, , .		1
107	Cavity solitons in vertical-cavity surface-emitting lasers. , 2014, , .		1
108	Modeling of multimode laser dynamics by means of delay differential equations. , 2014, , .		1

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109	Theoretical study of mode-locked lasers with nonlinear loop mirrors. , 2018, , .		1
110	Pulsed Operation in a Swept Laser with Feedback. , 2020, , .		1
111	<title>Dynamics of transverse modes in a class-B laser</title>. , 1996, 2792, 242.		0
112	<title>Complex Lorenz equations</title>. , 1997, , .		0
113	Interaction of periodic and localized structures in two-dimensional passive cavities. , 2003, , .		0
114	Localized structures in a passive cavity with refractive index modulation. , 0, , .		0
115	Delay differential equations for passive mode locking. , 0, , .		0
116	Localized structures of light in nonlinear devices with intracavity photonic bandgap material. , 2007, , .		0
117	Removing modulational instabilities in low dispersion fiber cavities. , 2007, , .		0
118	Strong enhancement of interaction of optical pulses induced by oscillatory instability. , 2009, , .		0
119	Traveling wave modeling of mode-locked quantum dot semiconductor lasers. , 2009, , .		0
120	Strong asymmetry of mode-locking pulses in quantum-dot semiconductor lasers. , 2011, , .		0
121	Synchronization of interacting temporal cavity oscillons. , 2011, , .		0
122	Mobility properties of 2D cavity solitons in systems with delayed feedback. , 2011, , .		0
123	Delay feedback induces drift of multipeaks cavity solitons in VCSEL devices. , 2013, , .		0
124	Theoretical analysis of timing jitter in two-section passively mode-locked semiconductor lasers. , 2013, , .		0
125	Delay induced instabilities of cavity solitons in passive and active laser systems. , 2013, , .		0
126	Phase and frequency dynamics of a short cavity swept-source OCT laser. , 2015, , .		0

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127	Localized Structures in Broad Area VCSELs: Experiments and Delay-Induced Motion. Springer Proceedings in Physics, 2015, , 417-437.	0.2	0
128	Phase evolution and instantaneous linewidth of a Fourier domain mode locked laser. , 2015, , .		0
129	Phase and frequency dynamics of Fourier domain mode locked OCT lasers. , 2015, , .		0
130	Interaction of spatial and temporal cavity solitons in mode-locked lasers and passive cavities. , 2016, , .		0
131	Coherence properties of fast frequency swept lasers revealed via full electric field reconstruction. Proceedings of SPIE, 2016, , .	0.8	0
132	Effect of Cherenkov radiation on the interaction of temporal dissipative solitons in a driven cavity with high order dispersion. , 2017, , .		0
133	Distributed delay differential model of a multimode semiconductor laser. , 2017, , .		0
134	Complex Dynamics of Long Cavity Lasers. , 2019, , .		0
135	Dark Pulses in a Long Ring Laser. , 2019, , .		0
136	Periodic pulsating dynamics of slowâ€“fast delayed systems with a period close to the delay. European Journal of Applied Mathematics, 2019, 30, 39-62.	2.9	0
137	Two-dimensional clusters of solitary structures in driven optical cavities. , 2002, , .		0
138	High-order vortices and multi-hump rotating laser solitons. , 2002, , .		0
139	Analysis of Temporal Dissipative Solitons in a Delayed Model of a Ring Semiconductor Laser. Trends in Mathematics, 2019, , 7-12.	0.1	0
140	Stable and unstable Nozaki-Bekki holes in a long laser. , 2019, , .		0
141	Saturation effects in nonlinear loop mirror lasers: square wave operation. , 2019, , .		0
142	Turn on transient in a long cavity laser. , 2020, , .		0
143	Stability of a long cavity laser. , 2020, , .		0
144	Turbulent coherent structures in a long cavity semiconductor laser near the lasing threshold: publisherâ€™s note. Optics Letters, 2020, 45, 5500.	3.3	0