

# Andrei G Vladimirov

## List of Publications by Year in descending order

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144  
papers

3,162  
citations

117453

34  
h-index

174990

52  
g-index

145  
all docs

145  
docs citations

145  
times ranked

1164  
citing authors

#	ARTICLE	IF	CITATIONS
1	Model for passive mode locking in semiconductor lasers. <i>Physical Review A</i> , 2005, 72, .	1.0	265
2	Global Coupling with Time Delay in an Array of Semiconductor Lasers. <i>Physical Review Letters</i> , 2000, 85, 3809-3812.	2.9	187
3	Two-dimensional clusters of solitary structures in driven optical cavities. <i>Physical Review E</i> , 2002, 65, 046606.	0.8	101
4	Localized structures in dissipative media: from optics to plant ecology. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20140101.	1.6	96
5	Effect of frequency detunings and finite relaxation rates on laser localized structures. <i>Physical Review E</i> , 2000, 61, 5814-5824.	0.8	93
6	Delay differential equations for mode-locked semiconductor lasers. <i>Optics Letters</i> , 2004, 29, 1221.	1.7	92
7	Spontaneous Motion of Cavity Solitons Induced by a Delayed Feedback. <i>Physical Review Letters</i> , 2009, 103, 103904.	2.9	85
8	Delay-induced dynamics and jitter reduction of passively mode-locked semiconductor lasers subject to optical feedback. <i>New Journal of Physics</i> , 2012, 14, 113033.	1.2	83
9	40ÂGHz Mode-Locked Semiconductor Lasers: Theory, Simulations and Experiment. <i>Optical and Quantum Electronics</i> , 2006, 38, 495-512.	1.5	76
10	Model for mode locking in quantum dot lasers. <i>Applied Physics Letters</i> , 2006, 88, 201102.	1.5	69
11	Long-Range Interaction and Synchronization of Oscillating Dissipative Solitons. <i>Physical Review Letters</i> , 2012, 108, 263906.	2.9	68
12	Dynamics of Fourier domain mode-locked lasers. <i>Optics Express</i> , 2013, 21, 19240.	1.7	66
13	Vortex Induced Rotation of Clusters of Localized States in the Complex Ginzburg-Landau Equation. <i>Physical Review Letters</i> , 2002, 89, 044101.	2.9	62
14	Solitary-wave solutions for few-cycle optical pulses. <i>Physical Review A</i> , 2008, 77, .	1.0	58
15	Numerical investigation of laser localized structures. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 1999, 1, 101-106.	1.4	57
16	Control and removal of modulational instabilities in low-dispersion photonic crystal fiber cavities. <i>Optics Letters</i> , 2007, 32, 662.	1.7	53
17	Topologically multicharged and multihumped rotating solitons in wide-aperture lasers with a saturable absorber. <i>IEEE Journal of Quantum Electronics</i> , 2003, 39, 197-205.	1.0	51
18	Numerical Study of Dynamical Regimes in a Monolithic Passively Mode-Locked Semiconductor Laser. <i>IEEE Journal of Quantum Electronics</i> , 2009, 45, 462-468.	1.0	48

#	ARTICLE	IF	CITATIONS
19	Bragg localized structures in a passive cavity with transverse modulation of the refractive index and the pump. Optics Express, 2006, 14, 1.	1.7	45
20	Hybrid mode-locking in a 40 GHz monolithic quantum dot laser. Applied Physics Letters, 2010, 96, .	1.5	45
21	Interaction and stability of periodic and localized structures in optical bistable systems. IEEE Journal of Quantum Electronics, 2003, 39, 216-226.	1.0	44
22	Dynamics of a semiconductor laser array with delayed global coupling. Physical Review E, 2001, 64, 016613.	0.8	43
23	Stripe-array diode-laser in an off-axis external cavity: Theory and experiment. Optics Express, 2009, 17, 19599.	1.7	43
24	A new model for a mode-locked semiconductor laser. Radiophysics and Quantum Electronics, 2004, 47, 769-776.	0.1	42
25	Hybrid Mode Locking in Semiconductor Lasers: Simulations, Analysis, and Experiments. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 1100208-1100208.	1.9	41
26	Stable bound states of one-dimensional autosolitons in a bistable laser. Physical Review E, 2001, 63, 056607.	0.8	40
27	Synchronization of weakly stable oscillators and semiconductor laser arrays. Europhysics Letters, 2003, 61, 613-619.	0.7	39
28	Effect of Cherenkov radiation on localized-state interaction. Physical Review A, 2018, 97, .	1.0	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.	0.9	37
30	Relative stability of multippeak localized patterns of cavity solitons. Physical Review A, 2011, 84, .	1.0	37
31	Dynamics of a short cavity swept source OCT laser. Optics Express, 2014, 22, 18177.	1.7	36
32	Timing jitter of passively-mode-locked semiconductor lasers subject to optical feedback: A semi-analytic approach. Physical Review A, 2015, 92, .	1.0	36
33	Stability of the mode-locked regime in quantum dot lasers. Applied Physics Letters, 2007, 91, .	1.5	35
34	Optically injected mode-locked laser. Physical Review E, 2011, 83, 066202.	0.8	35
35	Pulse interaction via gain and loss dynamics in passive mode locking. Physica D: Nonlinear Phenomena, 2006, 218, 95-104.	1.3	34
36	Dispersive Time-Delay Dynamical Systems. Physical Review Letters, 2017, 118, 193901.	2.9	33

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37	Chaotic bound state of localized structures in the complex Ginzburg-Landau equation. <i>Physical Review E</i> , 2007, 75, 045601.	0.8	32
38	Delayed feedback control of self-mobile cavity solitons. <i>Physical Review A</i> , 2013, 88, .	1.0	32
39	Delay feedback induces a spontaneous motion of two-dimensional cavity solitons in driven semiconductor microcavities. <i>Physical Review A</i> , 2012, 86, .	1.0	31
40	Dynamical regimes in a monolithic passively mode-locked quantum dot laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2010, 27, 2102.	0.9	30
41	A model equation for ultrashort optical pulses around the zero dispersion frequency. <i>European Physical Journal D</i> , 2010, 58, 219-226.	0.6	28
42	Pulse Broadening in Quantum-Dot Mode-Locked Semiconductor Lasers: Simulation, Analysis, and Experiments. <i>IEEE Journal of Quantum Electronics</i> , 2011, 47, 935-943.	1.0	27
43	Q-switching instability in a mode-locked semiconductor laser. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 663.	0.9	26
44	Multidimensional quasiperiodic antiphase dynamics. <i>Physical Review E</i> , 1999, 60, 1616-1629.	0.8	25
45	Semiconductor mode-locked lasers with coherent dual-mode optical injection: simulations, analysis, and experiment. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2016, 33, 351.	0.9	23
46	Bifurcation analysis of laser autosolitons. <i>Quantum Electronics</i> , 1997, 27, 949-952.	0.3	22
47	Modulational instability of discrete solitons in coupled waveguides with group velocity dispersion. <i>Optics Express</i> , 2006, 14, 12347.	1.7	19
48	Strong pulse asymmetry in quantum-dot mode-locked semiconductor lasers. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	19
49	Conditions for the existence of laser bullets. <i>Optics and Spectroscopy (English Translation of Optika) Tj ETQq1 1 0.784314 rgBT /Ove</i>	0.2	18
50	Effect of dynamical instability on timing jitter in passively mode-locked quantum-dot lasers. <i>Optics Letters</i> , 2014, 39, 6815.	1.7	18
51	Cavity solitons in vertical-cavity surface-emitting lasers. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20140013.	1.6	18
52	Analysis of the stability of laser solitons. <i>Quantum Electronics</i> , 1998, 28, 55-57.	0.3	17
53	Chaotic soliton walk in periodically modulated media. <i>Physical Review E</i> , 2008, 77, 065201.	0.8	17
54	Localized Beating between Dynamically Generated Frequencies. <i>Physical Review Letters</i> , 2009, 102, 043905.	2.9	17

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55	Pulse repetition-frequency multiplication in a coupled cavity passively mode-locked semiconductor lasers. <i>Applied Physics B: Lasers and Optics</i> , 2015, 118, 539-548.	1.1	17
56	Tunable Kerr frequency combs and temporal localized states in time-delayed Giresâ€“Tournois interferometers. <i>Optics Letters</i> , 2019, 44, 4925.	1.7	17
57	Low-intensity chaotic operations of a laser with a saturable absorber. <i>Optics Communications</i> , 1993, 100, 351-360.	1.0	16
58	Curvature Instability in Passive Diffractive Resonators. <i>Physical Review Letters</i> , 2002, 89, 233901.	2.9	15
59	Experimental investigations on the suppression of Q switching in monolithic 40GHz mode-locked semiconductor lasers. <i>Applied Physics Letters</i> , 2006, 88, 221104.	1.5	15
60	Theoretical Investigation of Striped and Non-Striped Broad Area Lasers With Off-Axis Feedback. <i>IEEE Journal of Quantum Electronics</i> , 2012, 48, 353-360.	1.0	15
61	Impact of time-delayed feedback on spatiotemporal dynamics in the Lugiato-Lefever model. <i>Physical Review A</i> , 2016, 93, .	1.0	15
62	Multi-stability and polariton solitons in microcavity wires. <i>Optics Letters</i> , 2015, 40, 1787.	1.7	14
63	Spontaneous motion of localized structures and localized patterns induced by delayed feedback. <i>European Physical Journal D</i> , 2010, 59, 59-65.	0.6	13
64	Bistability and hysteresis in an optically injected two-section semiconductor laser. <i>Physical Review E</i> , 2014, 89, 052903.	0.8	13
65	Bound Pulse Trains in Arrays of Coupled Spatially Extended Dynamical Systems. <i>Physical Review Letters</i> , 2017, 119, 163901.	2.9	13
66	Dissipative soliton interaction in Kerr resonators with high-order dispersion. <i>Physical Review A</i> , 2021, 103, .	1.0	13
67	Bifurcation analysis of a bidirectional class B ring laser. <i>Optics Communications</i> , 1998, 149, 67-72.	1.0	12
68	The Complex Lorenz Model: Geometric Structure, Homoclinic Bifurcation and One-Dimensional Map. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 1998, 08, 723-729.	0.7	12
69	Stability of Plane Wave Solutions in Complex Ginzburg–Landau Equation with Delayed Feedback. <i>SIAM Journal on Applied Dynamical Systems</i> , 2014, 13, 986-1009.	0.7	12
70	Convective Nozaki-Bekki holes in a long cavity OCT laser. <i>Optics Express</i> , 2019, 27, 16395.	1.7	12
71	Dynamical regimes of a multistribe laser array with external off-axis feedback. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2013, 30, 1606.	0.9	11
72	Modulational instability and zigzagging of dissipative solitons induced by delayed feedback. <i>Physical Review A</i> , 2016, 93, .	1.0	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.	1.0	10
74	Symmetry breaking and dynamical independence in a multimode laser. Physical Review E, 2000, 62, 6312-6317.	0.8	9
75	Bistable regimes in an optically injected mode-locked laser. Optics Express, 2012, 20, 25572.	1.7	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.	1.6	9
77	Temporal cavity solitons in a delayed model of a dispersive cavity ring laser. Mathematical Modelling of Natural Phenomena, 2020, 15, 47.	0.9	9
78	Nonlinear dynamics in a single mode three-level laser without inversion. Physical Review E, 1998, 57, 1499-1510.	0.8	8
79	Interaction between vegetation patches and gaps: A self-organized response to water scarcity. Physica D: Nonlinear Phenomena, 2020, 414, 132708.	1.3	8
80	Generalized Haus master equation model for mode-locked class- $B$ lasers. Physical Review E, 2021, 104, 014215.	0.8	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.	0.9	7
82	Dynamics of a class- $A$ nonlinear mirror mode-locked laser. Physical Review E, 2019, 100, 012216.	0.8	7
83	Intracavity second-harmonic generation: The steady-state solutions. Physical Review A, 1998, 58, 3320-3327.	1.0	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.	0.2	6
85	Phase and amplitude dynamics of the TEM <sub>10</sub> and TEM <sub>01</sub> modes in a class-B laser. Quantum Electronics, 1997, 27, 892-896.	0.3	5
86	Properties of the phase space and bifurcations in the complex Lorenz model. Technical Physics, 1998, 43, 877-884.	0.2	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.	1.0	5
89	Delayed feedback control of self-mobile cavity solitons in a wide-aperture laser with a saturable absorber. Chaos, 2017, 27, 114304.	1.0	5
90	Delay-differential-equation model for mode-locked lasers based on nonlinear optical and amplifying loop mirrors. Physical Review A, 2021, 104, .	1.0	5

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91	Turbulent coherent structures in a long cavity semiconductor laser near the lasing threshold. Optics Letters, 2020, 45, 4903.	1.7	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.	1.7	4
94	Short- and long-range temporal cavity soliton interaction in delay models of mode-locked lasers. Physical Review E, 2022, 105, 044207.	0.8	4
95	Stability and oscillations of two-dimensional solitons described by the perturbed nonlinear Schrödinger equation. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2000, 89, 731-736.	0.2	3
96	Delay induces motion of multipole 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.	0.8	3
99	Dynamic instabilities in the interaction of transverse modes in a class-B laser. Quantum Electronics, 1997, 27, 887-891.	0.3	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.	0.6	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.	0.1	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.	1.4	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.	1.7	0