

# Valery E Lobanov

## List of Publications by Year in descending order

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134  
papers

1,998  
citations

257357

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243529

44  
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135  
all docs

135  
docs citations

135  
times ranked

984  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fundamental and vortex dissipative quadratic solitons supported by spatially localized gain. Physical Review A, 2022, 105, .	1.0	8
2	Novel methods of platicon generation in optical microresonators: numerical study. , 2022, , .		0
3	Dynamics of soliton self-injection locking in optical microresonators. Nature Communications, 2021, 12, 235.	5.8	86
4	Optimization of the self-injection locking and resonator characterisation in this regime. , 2021, , .		0
5	Thermal Influence on laser self-injection locking to nonlinear microresonator. , 2021, , .		2
6	Magneto-optical effects in a high-Q whispering-gallery-mode resonator with a large Verdet constant. Optics Letters, 2021, 46, 2509.	1.7	3
7	Thermally induced generation of platicons in optical microresonators. Optics Letters, 2021, 46, 2380.	1.7	31
8	Gain-Switched Laser Self-Injection Locked to a WGM Microresonator. , 2021, , .		0
9	Self-Injection Locking of a Gain-Switched Laser Diode. Physical Review Applied, 2021, 15, .	1.5	14
10	Dynamics of self-injection locked multimode diode laser. , 2021, , .		0
11	Influence of the Gain Switching on the Self-Injection Locking of a Laser Diode. , 2021, , .		0
12	Fundamental and Vortex Dissipative Quadratic Solitons Supported by Localized Gain. , 2021, , .		0
13	Current Frequency Chirping of a Laser Diode in Self-Injection Locking Regime. , 2021, , .		0
14	Modeling of Thermal Effects in the Regime of Self-Injection Locking and Frequency Comb Generation. , 2021, , .		0
15	Generation of Platicons in Optical Microresonators via Thermal Effects. , 2021, , .		0
16	Gain-Switched Laser Properties at Self-injection Locking to a High-Q WGM Microresonator. , 2021, , .		0
17	Operation of the Gain-Switched Laser in the Self-Injection Locking Regime to a Microcavity. , 2021, , .		0
18	Generation of Vector Platicons and Hybrid Soliton-Platicon Complexes in Optical Microresonators by Modulated Pump. , 2021, , .		0

#	ARTICLE	IF	CITATIONS
19	Stabilization of the Gain-Switched Laser via Self-Injection Locking Regime to a WGM Microresonator. , 2021, , .		0
20	Universal Approach for Accurate Measurement of Dispersive Characteristics of Optical Microresonators. , 2021, , .		0
21	Generation of Platicons in Optical Microresonators Enabled by Thermal Effects. , 2021, , .		0
22	Generation of Vector Platicons and Hybrid Soliton-Platicon Complexes in Optical Microresonators via Modulated Pump. , 2021, , .		0
23	Whispering gallery modes excitation in microresonators of crystalline silicon at 8.6 Åµm wavelength.. , 2021, , .		0
24	Laser Self-Injection Locking and Thermal Effects Compensation for Frequency Comb Generation. , 2021, , .		0
25	Generation of vector flat-top solitons and hybrid brightâ€“flat-top soliton complexes in optical microresonators via modulated pump. Physical Review A, 2021, 104, .	1.0	6
26	Mirror-Assisted Self-Injection Locking of a Laser to a Whispering-Gallery-Mode Microresonator. Physical Review Applied, 2021, 16, .	1.5	8
27	Optimization of Laser Stabilization via Self-Injection Locking to a Whispering-Gallery-Mode Microresonator. Physical Review Applied, 2020, 14, .	1.5	41
28	Two-color flat-top solitons in microresonator-based optical parametric oscillators. Physical Review A, 2020, 102, .	1.0	4
29	Two-color flat-top solitonic pulses in Ĩ(2) optical microresonators via second-harmonic generation. Physical Review A, 2020, 101, .	1.0	5
30	Modulational instability and frequency combs in whispering-gallery-mode microresonators with backscattering. Physical Review A, 2020, 101, .	1.0	43
31	Microresonator and Laser Parameter Definition via Self-Injection Locking. Physical Review Applied, 2020, 14, .	1.5	24
32	Numerical modelling of WGM microresonator Kerr frequency combs in self-injection locking regime. , 2020, , .		2
33	Generation and properties of dissipative Kerr solitons and platicons in optical microresonators with backscattering. Optics Express, 2020, 28, 36544.	1.7	9
34	Numerical study of solitonic pulse generation in the self-injection locking regime at normal and anomalous group velocity dispersion. Optics Express, 2020, 28, 38892.	1.7	35
35	Properties of Dissipative Kerr Solitons in Optical Microresonators with Backscattering. , 2020, , .		0
36	Quadratic Platicons in Ĩ(2) Optical Microresonators. , 2020, , .		0

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37	Laser Self-Injection Locking to Nonlinear Microresonator with Thermal Effects. , 2020, , .		0
38	Generation of Two-Color Platons in $\ddot{\ddot{2}}$ Microresonators. , 2020, , .		0
39	Nonlinear Self-Injection Locking: Theory and Experiment. , 2020, , .		0
40	Switching of Soliton States in an Integrated 30 GHz Soliton Microcomb Source. , 2020, , .		0
41	Modeling of solitons and platons in self-injection locking regime. , 2020, , .		0
42	Two-color platons in quadratically nonlinear optical microresonators. , 2020, , .		1
43	Optimization of a frequency comb-based calibration of a tunable laser. , 2020, , .		0
44	Surface and bulk scattering engineering in microresonators for enhancement of laser stabilization via self-injection locking. , 2020, , .		0
45	Generation of Solitons and Platons in Optical Microresonators with Backscattering. , 2020, , .		0
46	Mid-IR DFB Laser Stabilization and Characterization with Silicon Microresonator. , 2020, , .		0
47	Fundamentals of the theory of self-injection locking of multi-frequency laser diode to high-Q optical microresonator. Journal of Physics: Conference Series, 2019, 1283, 012006.	0.3	0
48	Generation and dynamics of solitonic pulses due to pump amplitude modulation at normal group-velocity dispersion. Physical Review A, 2019, 100, .	1.0	37
49	Self-injection locking of a laser diode to a high-Q silicon WGM microresonator. EPJ Web of Conferences, 2019, 220, 03027.	0.1	1
50	Influence of the microresonator nonlinearity on the self-injection locking effect. EPJ Web of Conferences, 2019, 220, 02006.	0.1	2
51	Generation of frequency combs and dissipative solitons in integrated microresonators in self-injection locking regime. EPJ Web of Conferences, 2019, 220, 03001.	0.1	0
52	Fabrication and Characterization of High-Quality Factor Silicon WGM Microresonators. , 2019, , .		0
53	Kerr Frequency Comb Generation and Soliton Dynamics Caused by Forward-Backward Wave Interaction in WGM Microresonators. , 2019, , .		0
54	Spectral Purification of Microwave Signals with Disciplined Dissipative Kerr Solitons. Physical Review Letters, 2019, 122, 013902.	2.9	58

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55	Stability analysis of numerically exact time-periodic breathers in the Lugiato-Lefever equation: Discrete vs continuum. <i>Physical Review Research</i> , 2019, 1, .	1.3	7
56	Backward-wave induced modulational instability in normal dispersion. , 2019, , .		0
57	Dissipative Kerr Solitons in a Bi-directional Optical Microresonator with Backscattering. , 2019, , .		0
58	Spectrum collapse, narrow lines, and soliton combs with multi-frequency laser diodes locked to optical microresonators. , 2019, , .		0
59	Experimental observation of above billion quality factor in silicon crystalline optical whispering gallery mode resonators. , 2019, , .		0
60	Spectrum Collapse and Kerr Frequency Comb Generation with Multi-Frequency Laser Diodes Self-Injection Locked to High-Q Optical Microresonator. , 2019, , .		0
61	Narrow linewidth diode laser self-injection locked to a high-Q microresonator. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	4
62	Bogotov effect in self-injection locked multimode diode laser: Theory and experiment. , 2018, , .		0
63	Theory of self-injection locking of a laser diode to a whispering gallery mode microresonator. , 2018, , .		0
64	Investigation of Kerr frequency combs generation methods in normal GVD regime. , 2018, , .		0
65	Spectrum collapse, narrow linewidth, and Bogotov effect in diode lasers locked to high-Q optical microresonators. <i>Optics Express</i> , 2018, 26, 30509.	1.7	74
66	Billion Q-factor in silicon WGM resonators. <i>Optica</i> , 2018, 5, 1525.	4.8	59
67	Injection locking of dissipative Kerr solitons. , 2018, , .		0
68	Kerr combs in microresonators: from chaos to solitons and from theory to experiment (Conference) Tj ETQq0 0 0 rgBT /Overlçck 10 Tf 5		
69	Dissipative Kerr solitons and Cherenkov radiation in optical microresonators with third-order dispersion. <i>Physical Review A</i> , 2017, 95, .	1.0	41
70	Dynamics of platicons due to third-order dispersion. <i>European Physical Journal D</i> , 2017, 71, 1.	0.6	32
71	Universal dynamics and deterministic switching of dissipative Kerr solitons in optical microresonators. <i>Nature Physics</i> , 2017, 13, 94-102.	6.5	331
72	Universal dynamics and deterministic switching of dissipative Kerr solitons in optical microresonators. , 2017, , .		0

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73	Self-injection locking of a laser diode to a high-Q WGM microresonator. Optics Express, 2017, 25, 28167.	1.7	164
74	Raman-Kerr frequency combs in microresonators with normal dispersion. Optics Express, 2017, 25, 31148.	1.7	36
75	Nonlinear properties of high-Q optical microresonators in normal dispersion range. EPJ Web of Conferences, 2017, 161, 02025.	0.1	0
76	Universal dynamics and deterministic switching of dissipative Kerr solitons in optical microresonators. , 2017, , .		1
77	Harmonization of chaos into a soliton in Kerr frequency combs. Optics Express, 2016, 24, 27382.	1.7	48
78	Universal Dynamics and Controlled Switching of Dissipative Kerr Solitons in Optical Microresonators. , 2016, , .		2
79	Generation of platicons and frequency combs in optical microresonators with normal GVD by modulated pump. Europhysics Letters, 2015, 112, 54008.	0.7	57
80	Dynamic versus Anderson wave-packet localization. Physical Review A, 2015, 91, .	1.0	4
81	Anderson localization of multichannel excitations in disordered two-dimensional waveguide arrays. Europhysics Letters, 2015, 109, 54001.	0.7	0
82	Frequency combs and platicons in optical microresonators with normal GVD. Optics Express, 2015, 23, 7713.	1.7	146
83	Stabilization of spatiotemporal solitons in Kerr media by dispersive coupling. Optics Letters, 2015, 40, 1045.	1.7	52
84	Spatio-temporal hybrid Anderson localization. Europhysics Letters, 2014, 108, 64002.	0.7	1
85	Dissipative quadratic solitons supported by a localized gain. Physical Review A, 2014, 90, .	1.0	11
86	Fundamental, Multipole, and Half-Vortex Gap Solitons in Spin-Orbit Coupled Bose-Einstein Condensates. Physical Review Letters, 2014, 112, 180403.	2.9	128
87	Interaction of pulsed laser beams in quadratic nonlinear media. Physics of Wave Phenomena, 2013, 21, 5-9.	0.3	3
88	Anderson localization of light with topological dislocations. Physical Review A, 2013, 88, .	1.0	12
89	Anderson localization in Bragg-guiding arrays with negative defects. Optics Letters, 2012, 37, 4020.	1.7	5
90	Solitons supported by spatially inhomogeneous nonlinear losses. Optics Express, 2012, 20, 2657.	1.7	35

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91	Asymmetric solitons and domain walls supported by inhomogeneous defocusing nonlinearity. Optics Letters, 2012, 37, 5000.	1.7	15
92	Stable bright and vortex solitons in photonic crystal fibers with inhomogeneous defocusing nonlinearity. Optics Letters, 2012, 37, 1799.	1.7	26
93	Solitons supported by singular spatial modulation of the Kerr nonlinearity. Physical Review A, 2012, 85, .	1.0	15
94	Stable vortex-soliton tori with multiple nested phase singularities in dissipative media. Physical Review A, 2012, 85, .	1.0	13
95	Topological light bullets supported by spatiotemporal gain. Physical Review A, 2012, 85, .	1.0	4
96	Soliton generation by counteracting gain-guiding and self-bending. Optics Letters, 2012, 37, 4540.	1.7	6
97	Stable nonlinear amplification of solitons without gain saturation. Europhysics Letters, 2012, 97, 44003.	0.7	13
98	Nonlinear effects upon collisions of optical pulses: Tunneling, blocking, and trapping. Bulletin of the Russian Academy of Sciences: Physics, 2012, 76, 305-308.	0.1	7
99	Repulsion and total reflection with mismatched three-wave interaction of noncollinear optical beams in quadratic media. Physical Review A, 2011, 84, .	1.0	8
100	Stable radially symmetric and azimuthally modulated vortex solitons supported by localized gain. Optics Letters, 2011, 36, 85.	1.7	48
101	Rotating vortex solitons supported by localized gain. Optics Letters, 2011, 36, 1936.	1.7	23
102	General quasi-nonspreading linear three-dimensional wave packets. Optics Letters, 2011, 36, 2176.	1.7	10
103	Vortex twins and anti-twins supported by multiring gain landscapes. Optics Letters, 2011, 36, 3783.	1.7	15
104	Stable fundamental and vortex solitons supported by localized gain. , 2011, , .		0
105	Collision of optical pulses in nonlinear dispersive media: frequency tuning and velocity variation. Proceedings of SPIE, 2010, , .	0.8	0
106	Tunneling of optical beams through inhomogeneity of a refractive index. Bulletin of the Russian Academy of Sciences: Physics, 2010, 74, 1718-1720.	0.1	4
107	Total reflection, frequency, and velocity tuning in optical pulse collision in nonlinear dispersive media. Physical Review A, 2010, 82, .	1.0	28
108	Nonlinear diffraction and total internal reflection in optical-beam interaction in defocusing media. Journal of Russian Laser Research, 2010, 31, 1-11.	0.3	3

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109	Inhibition of light tunneling for multichannel excitations in longitudinally modulated waveguide arrays. <i>Physical Review A</i> , 2010, 81, .	1.0	12
110	Light Bullets by Synthetic Diffraction-Dispersion Matching. <i>Physical Review Letters</i> , 2010, 105, 033901.	2.9	26
111	Fundamental Limits for Compression Dynamics of Few-Cycle Pulses. , 2009, , .		0
112	Controllable discrete diffraction in cascade-induced waveguides. <i>Quantum Electronics</i> , 2009, 39, 1050-1054.	0.3	1
113	Propagation and interaction of ultra-short pulses in quadratic crystals with controlled dispersion. <i>Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta)</i> , Tj ETQq1 1 0.784314rgBT /Oerlock 10		
114	The propagation of wave beams in 2D cascade-induced lattices. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2009, 73, 1571-1574.	0.1	0
115	Optical pulse velocity and frequency variations during cascade parametric interaction with a high powered reference pulse. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2009, 73, 1575-1577.	0.1	3
116	The effect of total internal reflection of wave beams in nonlinear media. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2009, 73, 1586-1589.	0.1	1
117	Nonlinear reflection of optical beams in the media with a thermal nonlinearity. <i>Laser Physics</i> , 2009, 19, 1112-1116.	0.6	24
118	Optical pulse delay or advance and frequency tuning with mismatched three-wave interaction. , 2009, , .		0
119	Discrete diffraction in a cascade-induced anisotropic lattice. <i>Moscow University Physics Bulletin (English Translation of Vestnik Moskovskogo Universiteta, Fizika)</i> , 2008, 63, 430-432.	0.1	0
120	Nonlinear optics of extremely short pulses in photonic crystals with controlled dispersion. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2008, 72, 695-697.	0.1	0
121	Discrete diffraction and waveguiding of optical beams in a cascade-induced lattice. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2008, 72, 718-720.	0.1	1
122	Diffraction of optical waves by nonlinearly induced cylinders. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2008, 72, 1593-1596.	0.1	2
123	Parametric reflection phenomenon in quadratic uniaxial crystals with birefringence. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2008, 72, 1597-1600.	0.1	1
124	Compression dynamics for phase-modulated few-cycle pulses. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2008, 72, 1628-1631.	0.1	0
125	Parametric reflection upon cascade interaction of focused optical beams. <i>Quantum Electronics</i> , 2008, 38, 951-955.	0.3	12
126	Few-cycle pulses interactions in nonlinear photonic crystals with managed dispersion. , 2008, , .		0



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127	Cascaded induced lattices in quadratic nonlinear medium. Proceedings of SPIE, 2008, , .	0.8	1
128	Few-cycle pulse interactions in dispersion-managed quadratic photonic crystals. , 2008, , .		0
129	Elastic Collisions and Scattering of Optical Beams with Three-Wave Parametric Interactions. , 2007, , .		0
130	Spatial all-optical switching with mismatched three-wave interaction. , 2006, , .		0
131	<title>Mismatched three-wave interaction of optical noncollinear beams in nonlinear media</title> , 2006, , .		3
132	Hybrid Parametric Solitons in Nonlinear Photonic Crystals. Radiophysics and Quantum Electronics, 2003, 46, 366-373.	0.1	0
133	Trapping of three-colour spatial solitons with QPM multistep cascading. , 0, , .		0
134	Parametric spatial switching: new effects and applications. , 0, , .		0