

# Grigory Osipov

## List of Publications by Year in descending order

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104  
papers

5,494  
citations

201674

27  
h-index

79698

73  
g-index

105  
all docs

105  
docs citations

105  
times ranked

2778  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamics in a phase model of half-center oscillator: Two neurons with excitatory coupling. Communications in Nonlinear Science and Numerical Simulation, 2022, 104, 106045.	3.3	4
2	Stability of rotatory solitary states in Kuramoto networks with inertia. Physical Review E, 2022, 105, 024203.	2.1	6
3	Finite-density-induced motility and turbulence of chimera solitons. New Journal of Physics, 2022, 24, 043042.	2.9	3
4	Synchronization Regimes in an Ensemble of Phase Oscillators Coupled Through a Diffusion Field. Radiophysics and Quantum Electronics, 2022, 64, 709-725.	0.5	2
5	Spatiotemporal Regimes in the Kuramoto-Battogtokh System of Nonidentical Oscillators. Journal of Experimental and Theoretical Physics, 2021, 132, 127-147.	0.9	4
6	Synchronization structures in the chain of rotating pendulums. Nonlinear Dynamics, 2021, 104, 2117-2125.	5.2	4
7	Appearance of chaos and hyperchaos in evolving pendulum network. Chaos, 2021, 31, 063106.	2.5	4
8	Disorder fosters chimera in an array of motile particles. Physical Review E, 2021, 104, 034205.	2.1	6
9	Partial synchronization in the second-order Kuramoto model: An auxiliary system method. Chaos, 2021, 31, 113113.	2.5	7
10	Problems of representation of electrocardiograms in convolutional neural networks. , 2020, , .		0
11	Locking and regularization of chimeras by periodic forcing. Physical Review E, 2020, 102, 042218.	2.1	7
12	LUDB: A New Open-Access Validation Tool for Electrocardiogram Delineation Algorithms. IEEE Access, 2020, 8, 186181-186190.	4.2	32
13	Phase Control for the Dynamics of Connected Rotators. Automation and Remote Control, 2020, 81, 1499-1506.	0.8	3
14	Deep Learning for ECG Segmentation. Studies in Computational Intelligence, 2020, , 246-254.	0.9	24
15	Analytical approach to synchronous states of globally coupled noisy rotators. New Journal of Physics, 2020, 22, 023036.	2.9	10
16	Ventricular fibrillation induced by 2-aminoethoxydiphenyl borate under conditions of hypoxia/reoxygenation. Minerva Cardioangiologica, 2020, 68, 619-628.	1.2	2
17	ECG Segmentation by Neural Networks: Errors and Correction. , 2019, , .		15
18	Variety of rotation modes in a small chain of coupled pendulums. Chaos, 2019, 29, 033109.	2.5	4

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19	Twisted States in a System of Nonlinearly Coupled Phase Oscillators. Regular and Chaotic Dynamics, 2019, 24, 717-724.	0.8	7
20	The dynamics of ensemble of neuron-like elements with excitatory couplings. Communications in Nonlinear Science and Numerical Simulation, 2019, 71, 38-49.	3.3	13
21	Chimera Patterns in One-Dimensional Oscillatory Medium. , 2018, , 159-180.		0
22	Simple and complex chimera states in a nonlinearly coupled oscillatory medium. Chaos, 2018, 28, 045101.	2.5	27
23	Heteroclinic and Homoclinic Structures in the System of Four Identical Globally Coupled Phase Oscillators with Nonpairwise Interactions. Regular and Chaotic Dynamics, 2018, 23, 974-982.	0.8	3
24	Solitary synchronization waves in distributed oscillator populations. Physical Review E, 2018, 98, .	2.1	5
25	Describing dynamics of driven multistable oscillators with phase transfer curves. Chaos, 2018, 28, 106323.	2.5	3
26	Chimera patterns in the Kuramotoâ€“Battogtokh model. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 08LT01.	2.1	27
27	Collective dynamics of rotators coupled by a common pulsed field. Technical Physics Letters, 2017, 43, 9-11.	0.7	0
28	Regular and Chaotic Transition to Synchrony in a Star Configuration of Phase Oscillators. Advances in Dynamics, Patterns, Cognition, 2017, , 99-113.	0.3	1
29	Coexisting synchronous and asynchronous states in locally coupled array of oscillators by partial self-feedback control. Chaos, 2017, 27, 073108.	2.5	28
30	Breathing chimera in a system of phase oscillators. JETP Letters, 2017, 106, 393-399.	1.4	18
31	Transient and periodic spatiotemporal structures in a reaction-diffusion-mechanics system. Chaos, 2016, 26, 013101.	2.5	0
32	Excitation of spatiotemporal structures in elastic electroactive contractile fibers. Doklady Mathematics, 2016, 93, 108-111.	0.6	0
33	Analysis of Synchronous Dynamics of the Coupled Virtual Cathode Oscillators by Calculating the Spectrum of Lyapunov Exponents. Radiophysics and Quantum Electronics, 2016, 58, 793-797.	0.5	0
34	Influence of nonlinear amplitude dynamics on estimated delay time of coupling between self-oscillatory systems. Technical Physics Letters, 2016, 42, 287-290.	0.7	2
35	Marginal chimera state at cross-frequency locking of pulse-coupled neural networks. Physical Review E, 2016, 93, 032202.	2.1	14
36	Controlling the motion of a group of mobile agents. Technical Physics Letters, 2016, 42, 298-301.	0.7	0

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37	Bistability of rotational modes in a system of coupled pendulums. Regular and Chaotic Dynamics, 2016, 21, 849-861.	0.8	9
38	Mixed-mode synchronization between two inhibitory neurons with post-inhibitory rebound. Communications in Nonlinear Science and Numerical Simulation, 2016, 36, 175-191.	3.3	14
39	Multistability of synchronous regimes in rotator ensembles. Chaos, 2015, 25, 123121.	2.5	3
40	Localization attractors in active quasiperiodic arrays. JETP Letters, 2015, 102, 603-609.	1.4	3
41	Influence of sampling interval on the effect of false coupling between oscillators with different natural oscillation parameters. Technical Physics Letters, 2015, 41, 557-560.	0.7	2
42	Spectral power density of current oscillations in a semiconductor superlattice in the presence of a tilted magnetic field at various temperatures. Technical Physics Letters, 2015, 41, 98-101.	0.7	1
43	Application of continuous wavelet transform to the analysis of structural variations in complex networks. Technical Physics, 2015, 60, 785-788.	0.7	1
44	On constructing simple examples of three-dimensional flows with multiple heteroclinic cycles. Regular and Chaotic Dynamics, 2015, 20, 679-690.	0.8	0
45	Sequential dynamics in the motif of excitatory coupled elements. Regular and Chaotic Dynamics, 2015, 20, 701-715.	0.8	0
46	Dynamics of the finite-dimensional Kuramoto model: Global and cluster synchronization. Regular and Chaotic Dynamics, 2015, 20, 37-48.	0.8	10
47	Synchronization of elements with different dimensions of their ensembles in a complex network. Technical Physics Letters, 2015, 41, 69-71.	0.7	2
48	Studying spatially distributed systems near the boundary of phase chaotic synchronization on various time scales of observation. Technical Physics Letters, 2015, 41, 160-163.	0.7	0
49	Kuramoto Phase Model with Inertia: Bifurcations Leading to the Loss of Synchrony and to the Emergence of Chaos. Modelirovanie I Analiz Informacionnyh Sistem, 2015, 22, 595.	0.3	5
50	Interaction-based transition from passivity to excitability. Physical Review E, 2014, 90, 032916.	2.1	0
51	Coherence properties of cycling chaos. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 2734-2739.	3.3	3
52	A motion control for a spherical robot with pendulum drive. Journal of Computer and Systems Sciences International, 2013, 52, 650-663.	0.6	20
53	Sequential activity and multistability in an ensemble of coupled Van der Pol oscillators. European Physical Journal: Special Topics, 2013, 222, 2417-2428.	2.6	7
54	Sequential switching activity in ensembles of inhibitory coupled oscillators. Europhysics Letters, 2013, 101, 20009.	2.0	7

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55	High Performance Computing in Biomedical Applications. <i>Procedia Computer Science</i> , 2013, 18, 10-19.	2.0	17
56	Heteroclinic contours in oscillatory ensembles. <i>Physical Review E</i> , 2013, 87, 022909.	2.1	13
57	Spatiotemporal control of heart rate in a rabbit heart. <i>Journal of Electrocardiology</i> , 2011, 44, 626-634.	0.9	32
58	Map-based model of the cardiac action potential. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2011, 375, 2894-2902.	2.1	4
59	Metastable states and transient activity in ensembles of excitatory and inhibitory elements. <i>Europhysics Letters</i> , 2010, 91, 20006.	2.0	9
60	Distant synchronization through a passive medium. <i>Physical Review E</i> , 2010, 82, 026208.	2.1	7
61	Adaptive functional systems: Learning with chaos. <i>Chaos</i> , 2010, 20, 045119.	2.5	13
62	Fibroblasts alter spiral wave stability. <i>Chaos</i> , 2010, 20, 045103.	2.5	14
63	Influence of passive elements on the dynamics of oscillatory ensembles of cardiac cells. <i>Physical Review E</i> , 2009, 79, 046219.	2.1	8
64	Synchronization in growing heterogeneous media. <i>Europhysics Letters</i> , 2009, 86, 18001.	2.0	15
65	Numerical studies of slow rhythms emergence in neural microcircuits: Bifurcations and stability. <i>Chaos</i> , 2009, 19, 015107.	2.5	21
66	Synchronous regimes in ensembles of coupled Bonhoeffer-van der Pol oscillators. <i>Physical Review E</i> , 2009, 79, 046209.	2.1	11
67	Sequentially activated groups in neural networks. <i>Europhysics Letters</i> , 2009, 86, 60006.	2.0	22
68	Synchronization Phenomena in Networks of Oscillatory and Excitable Luo-Rudy Cells. <i>Understanding Complex Systems</i> , 2009, , 107-126.	0.6	1
69	Variety of synchronous regimes in neuronal ensembles. <i>Chaos</i> , 2008, 18, 037121.	2.5	14
70	MULTISCROLL IN COUPLED DOUBLE SCROLL TYPE OSCILLATORS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2008, 18, 2965-2980.	1.7	16
71	Introduction to Focus Issue: Synchronization in Complex Networks. <i>Chaos</i> , 2008, 18, 037101.	2.5	68
72	Cluster synchronization in oscillatory networks. <i>Chaos</i> , 2008, 18, 037106.	2.5	98

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73	Synchronization phenomena in mixed media of passive, excitable, and oscillatory cells. Chaos, 2008, 18, 037129.	2.5	42
74	Network Mechanism for Burst Generation. Physical Review Letters, 2007, 98, 108101.	7.8	32
75	Cluster synchronization and spatio-temporal dynamics in networks of oscillatory and excitable Luo-Rudy cells. Chaos, 2007, 17, 015111.	2.5	45
76	Announcement: Focus issue on "Synchronization in complex networks". Chaos, 2007, 17, 030201.	2.5	0
77	Synchronization in Oscillatory Networks. Springer Series in Synergetics, 2007, , .	0.4	321
78	Synchronization Analysis of Coupled Noncoherent Oscillators. Nonlinear Dynamics, 2006, 44, 135-149.	5.2	41
79	Automatic control of phase synchronization in coupled complex oscillators. Physica D: Nonlinear Phenomena, 2005, 200, 81-104.	2.8	27
80	Control of synchronous dynamics of chaotic bursts in ensembles of neuron-like elements. Radiophysics and Quantum Electronics, 2005, 48, 934-939.	0.5	1
81	Synchronized chaotic intermittent and spiking behavior in coupled map chains. Physical Review E, 2005, 71, 056209.	2.1	15
82	Phase Synchronization of Chaotic Intermittent Oscillations. Physical Review Letters, 2004, 92, 134101.	7.8	14
83	Synchronization of two non-scalar-coupled limit-cycle oscillators. Physica D: Nonlinear Phenomena, 2004, 189, 8-30.	2.8	37
84	Phase Synchronization in Ensembles of Bursting Oscillators. Physical Review Letters, 2004, 93, 134101.	7.8	138
85	Three Types of Transitions to Phase Synchronization in Coupled Chaotic Oscillators. Physical Review Letters, 2003, 91, 024101.	7.8	146
86	Oscillatory and rotatory synchronization of chaotic autonomous phase systems. Physical Review E, 2003, 67, 066216.	2.1	8
87	Phase Synchronization of Chaotic Rotators. Physical Review Letters, 2002, 88, 054102.	7.8	33
88	Suppressing arrhythmias in cardiac models using overdrive pacing and calcium channel blockers. Chaos, 2002, 12, 931-940.	2.5	66
89	Locking-Based Frequency Measurement and Synchronization of Chaotic Oscillators with Complex Dynamics. Physical Review Letters, 2002, 89, 264102.	7.8	62
90	The synchronization of chaotic systems. Physics Reports, 2002, 366, 1-101.	25.6	2,314

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91	Patterns in networks of oscillators formed via synchronization and oscillator death. Mathematics and Computers in Simulation, 2002, 58, 443-467.	4.4	18
92	Regular and chaotic phase synchronization of coupled circle maps. Physical Review E, 2001, 65, 016216.	2.1	22
93	Using weak impulses to suppress traveling waves in excitable media. Physical Review E, 1999, 60, 54-57.	2.1	34
94	Coherence resonance in excitable and oscillatory systems: The essential role of slow and fast dynamics. Physical Review E, 1999, 60, 6407-6410.	2.1	67
95	Impulse control of chaos in continuous systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 247, 119-128.	2.1	24
96	Suppressing chaos in the duffing oscillator by impulsive actions. Chaos, Solitons and Fractals, 1998, 9, 307-321.	5.1	26
97	Synchronized clusters and multistability in arrays of oscillators with different natural frequencies. Physical Review E, 1998, 58, 7198-7207.	2.1	50
98	Controlled movement and suppression of spiral waves in excitable media. Physical Review E, 1998, 58, 6955-6958.	2.1	34
99	Attractor-Repeller Collision and Eyelet Intermittency at the Transition to Phase Synchronization. Physical Review Letters, 1997, 79, 47-50.	7.8	209
100	Phase synchronization effects in a lattice of nonidentical Rössler oscillators. Physical Review E, 1997, 55, 2353-2361.	2.1	239
101	Phase synchronization of chaotic oscillations in terms of periodic orbits. Chaos, 1997, 7, 680-687.	2.5	119
102	Phase synchronization of chaotic oscillators by external driving. Physica D: Nonlinear Phenomena, 1997, 104, 219-238.	2.8	497
103	Coherent structures in coupled chains of self-excited oscillators. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 201, 205-212.	2.1	8
104	Feedback Control Principles for Phase Synchronization. , 0, , 379-403.		0