

# Dmitry Æ Postnov

## List of Publications by Year in descending order

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72  
papers

1,454  
citations

471509

17  
h-index

330143

37  
g-index

76  
all docs

76  
docs citations

76  
times ranked

920  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synchronization in renal microcirculation unveiled with high-resolution blood flow imaging. <i>ELife</i> , 2022, 11, .	6.0	11
2	Method for determining significant components for assessing pulse wave shape variability. <i>Izvestiya of Saratov University, New Series: Physics</i> , 2021, 21, 36-47.	0.1	0
3	Modeling of Astrocyte Networks: Toward Realistic Topology and Dynamics. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 645068.	3.7	21
4	Desynchrony and synchronisation underpinning sleep-wake cycles. <i>European Physical Journal Plus</i> , 2021, 136, 1.	2.6	2
5	Diffusion assessment through image processing: beyond the point-source paradigm. <i>European Physical Journal Plus</i> , 2021, 136, 1.	2.6	3
6	Biophotonic Strategies of Measurement and Stimulation of the Cranial and the Extracranial Lymphatic Drainage Function. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021, 27, 1-13.	2.9	13
7	Connectivity promotes repeatable activation patterns in the model of astrocytic networks. <i>European Physical Journal Plus</i> , 2021, 136, 1.	2.6	4
8	Toward Minimalistic Model of Cellular Volume Dynamics in Neurovascular Unit. <i>Mathematics</i> , 2021, 9, 2407.	2.2	0
9	Sleep as a Novel Biomarker and a Promising Therapeutic Target for Cerebral Small Vessel Disease: A Review Focusing on Alzheimer's Disease and the Blood-Brain Barrier. <i>International Journal of Molecular Sciences</i> , 2020, 21, 6293.	4.1	38
10	Distal Pulse Measurement Provides Statistical, but not Dynamical, Features of the Central Pulse. <i>Izvestiya of Saratov University, New Series: Physics</i> , 2020, 20, 164-170.	0.1	0
11	Gaussian sliding window for robust processing laser speckle contrast images. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2019, 35, e3186.	2.1	6
12	An image processing method for characterizing diffusivity in brain's parenchyma: a case study of significantly non-uniform structures. , 2019, , .		2
13	When Na modulates Ca: nonlinear interplay between Na/Ca-exchanger and IP3-mediated Ca oscillations in astrocytes. , 2019, , .		1
14	Blood-Brain Barrier, Lymphatic Clearance, and Recovery: Ariadne's Thread in Labyrinths of Hypotheses. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3818.	4.1	34
15	Noise-sustained patterns in a model of volume-coupled neural tissue. <i>Chaos</i> , 2018, 28, 106326.	2.5	4
16	Astrocyte calcium signaling: Interplay between structural and dynamical patterns. <i>Chaos</i> , 2018, 28, 106320.	2.5	15
17	Sodium-Calcium Exchanger Can Account for Regenerative Ca <sup>2+</sup> Entry in Thin Astrocyte Processes. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 250.	3.7	33
18	Dynamical mechanisms of conducted vasoreactivity: minimalistic modeling study. , 2018, , .		0

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19	Spatio-temporal cerebral blood flow perfusion patterns in cortical spreading depression. , 2017, , .		0
20	Lyapunov analysis of the spatially discrete-continuous system dynamics. Chaos, Solitons and Fractals, 2017, 104, 228-237.	5.1	2
21	The evolution of spatiotemporal chaos in a discrete-continuous active medium. Technical Physics Letters, 2017, 43, 587-589.	0.7	2
22	Turing-like structures in a functional model of cortical spreading depression. Physical Review E, 2017, 96, 062409.	2.1	5
23	26th Annual Computational Neuroscience Meeting (CNS*2017): Part 1. BMC Neuroscience, 2017, 18, .	1.9	0
24	Computational model of cerebral blood flow redistribution during cortical spreading depression. Proceedings of SPIE, 2016, , .	0.8	1
25	Modeling of Kidney Hemodynamics: Probability-Based Topology of an Arterial Network. PLoS Computational Biology, 2016, 12, e1004922.	3.2	27
26	Traveling waves and dynamical formation of autonomous pacemakers in a bistable medium with periodic boundary conditions. , 2015, , .		0
27	Akima splines for minimization of breathing interference in aortic rheography data. Proceedings of SPIE, 2015, , .	0.8	0
28	Mathematical model of depolarization mechanism of conducted vasoreactivity. Proceedings of SPIE, 2015, , .	0.8	0
29	Tissue perfusability assessment from capillary velocimetry data via the multicompartment Windkessel model. , 2015, , .		0
30	Conducted Vasoreactivity: the Dynamical Point of View. Bulletin of Mathematical Biology, 2015, 77, 230-249.	1.9	4
31	Monitoring of rhythms in laser speckle data. Journal of Innovative Optical Health Sciences, 2014, 07, 1450015.	1.0	3
32	Interaction of noise supported Ising-Bloch fronts with Dirichlet boundaries. Ecological Complexity, 2013, 14, 21-36.	2.9	6
33	From excitability to oscillations: A case study in vasomotion. European Physical Journal: Special Topics, 2013, 222, 2667-2676.	2.6	1
34	Dynamics of Nephron-Vascular Network. Bulletin of Mathematical Biology, 2012, 74, 2820-2841.	1.9	14
35	Self-terminating wave patterns and self-organized pacemakers in a phenomenological model of spreading depression. Brain Research, 2012, 1434, 200-211.	2.2	18
36	Synchronization: A Case in Biological Studies. , 2011, , 285-310.		0

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37	Functional Modeling of Neural-Glial Interaction. , 2011, , 133-151.		3
38	Functional Modeling of the Shift in Cellular Calcium Dynamics at the Onset of Synchronization in Smooth Muscle Cells. Bulletin of Mathematical Biology, 2011, 73, 2507-2525.	1.9	2
39	Dynamical structures in binary media of potassium-driven neurons. Physical Review E, 2009, 80, 031921.	2.1	24
40	Dynamical patterns of calcium signaling in a functional model of neuron-astrocyte networks. Journal of Biological Physics, 2009, 35, 425-445.	1.5	120
41	Giant Glial Cell: New Insight Through Mechanism-Based Modeling. Journal of Biological Physics, 2008, 34, 441-457.	1.5	18
42	Multimode dynamics in a network with resource mediated coupling. Chaos, 2008, 18, 015114.	2.5	7
43	NOISE CONTROLLED SYNCHRONIZATION IN POTASSIUM COUPLLED NEURAL MODELS. International Journal of Neural Systems, 2007, 17, 105-113.	5.2	20
44	Functional modeling of neural-glial interaction. BioSystems, 2007, 89, 84-91.	2.0	94
45	Noise-induced long-term potentiation via neural-glial interaction. , 2006, , .		0
46	Noise-induced effects in excitable system with subthreshold and suprathreshold oscillatory modes. , 2006, , .		0
47	NEURAL SYNCHRONIZATION VIA POTASSIUM SIGNALING. International Journal of Neural Systems, 2006, 16, 99-109.	5.2	12
48	Noise-Induced Coherence in an Excitable System with Frequency-Dependent Feedback. Technical Physics Letters, 2005, 31, 302.	0.7	1
49	Oscillator clustering in a resource distribution chain. Chaos, 2005, 15, 013704.	2.5	13
50	Two-mode chaos and its synchronization properties. Physical Review E, 2005, 72, 056208.	2.1	7
51	Noise induced dynamics and subthreshold oscillations. , 2005, , .		1
52	Synchronization of tubular pressure oscillations in interacting nephrons. Chaos, Solitons and Fractals, 2003, 15, 343-369.	5.1	16
53	Chaotic bursting as chaotic itinerancy in coupled neural oscillators. Chaos, 2003, 13, 1105-1109.	2.5	18
54	Complex phase dynamics in coupled bursters. Physical Review E, 2003, 67, 016215.	2.1	9

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55	Rhythmic Activity of Noisy Neural Circuits. Fluctuation and Noise Letters, 2003, 03, L275-L287.	1.5	2
56	Coherence resonance versus synchronization in a periodically forced self-sustained system. Physical Review E, 2002, 65, 041105.	2.1	16
57	Phase multistability of self-modulated oscillations. Physical Review E, 2002, 66, 036224.	2.1	10
58	Noise-induced multimode behavior in excitable systems. Physical Review E, 2002, 66, 016203.	2.1	16
59	Transition to synchronized chaos via suppression of the natural dynamics. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 283, 195-200.	2.1	9
60	Stochastic synchronization and the growth in regularity of the noise-induced oscillations. Technical Physics Letters, 2001, 27, 463-466.	0.7	4
61	COOPERATIVE PHASE DYNAMICS IN COUPLED NEPHRONS. International Journal of Modern Physics B, 2001, 15, 3079-3098.	2.0	27
62	CHAOTIC HIERARCHY IN HIGH DIMENSIONS. International Journal of Modern Physics B, 2000, 14, 2511-2527.	2.0	9
63	STOCHASTIC SYNCHRONIZATION OF COUPLED COHERENCE RESONANCE OSCILLATORS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2000, 10, 2541-2550.	1.7	13
64	Interacting Coherence Resonance Oscillators. Physical Review Letters, 1999, 83, 1771-1774.	7.8	129
65	Experimental observation of coherence resonance in cascaded excitable systems. Physical Review E, 1999, 59, R3791-R3794.	2.1	105
66	Homoclinic Bifurcation as a Mechanism of Chaotic Phase Synchronization. Physical Review Letters, 1999, 83, 1942-1945.	7.8	9
67	Synchronization of diffusively coupled oscillators near the homoclinic bifurcation. Physical Review E, 1999, 60, 2799-2807.	2.1	48
68	Role of multistability in the transition to chaotic phase synchronization. Chaos, 1999, 9, 227-232.	2.5	60
69	Synchronization Phenomena in an Array of Population Dynamic Systems. International Journal of Modeling, Simulation, and Scientific Computing, 1998, 01, 181-202.	1.4	4
70	Induced Hysteresis-Free Transitions in a Bistable System (Experimental Verification). International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1997, 07, 431-436.	1.7	0
71	DYNAMICS OF THE NONAUTONOMOUS CHUA'S CIRCUIT. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1995, 05, 1525-1540.	1.7	11
72	SYNCHRONIZATION OF CHAOS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1992, 02, 633-644.	1.7	162