

# Dmitry Bratsun

## List of Publications by Year in descending order

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65  
papers

1,045  
citations

623734

14  
h-index

434195

31  
g-index

66  
all docs

66  
docs citations

66  
times ranked

751  
citing authors

#	ARTICLE	IF	CITATIONS
1	The effect of concentration-dependent diffusion on double-diffusive instability. <i>Physics of Fluids</i> , 2022, 34, .	4.0	9
2	Protein pattern formation induced by the joint effect of noise and delay in a multi-cellular system. <i>Mathematical Modelling of Natural Phenomena</i> , 2022, 17, 16.	2.4	2
3	Study of architectural forms of invasive carcinoma based on the measurement of pattern complexity. <i>Mathematical Modelling of Natural Phenomena</i> , 2022, 17, 15.	2.4	1
4	Convective instability in multicomponent mixtures with Soret effect. <i>Computational Continuum Mechanics</i> , 2022, 15, 67-82.	0.5	1
5	Mixing control in a continuous-flow microreactor using electro-osmotic flow. <i>Mathematical Modelling of Natural Phenomena</i> , 2021, 16, 49.	2.4	4
6	Centrifugal convection in a two-layer system of reacting miscible fluids. <i>Journal of Physics: Conference Series</i> , 2021, 1809, 012017.	0.4	0
7	Determination of the stability boundary of a two-layer system of miscible liquids with linear diffusion laws. <i>Journal of Physics: Conference Series</i> , 2021, 1809, 012018.	0.4	0
8	On mechanisms of mixing by forced and natural convection in microfluidic devices. <i>Journal of Physics: Conference Series</i> , 2021, 1809, 012001.	0.4	0
9	Extended classification of the buoyancy-driven flows induced by a neutralization reaction in miscible fluids. Part 2. Theoretical study. <i>Journal of Fluid Mechanics</i> , 2021, 916, .	3.4	17
10	Extended classification of the buoyancy-driven flows induced by a neutralization reaction in miscible fluids. Part 1. Experimental study. <i>Journal of Fluid Mechanics</i> , 2021, 916, .	3.4	20
11	Stochastic Modeling of Protein Field with a Delayed Feedback. <i>Journal of Physics: Conference Series</i> , 2021, 1945, 012046.	0.4	0
12	Repressilator with time-delayed gene expression. Part II. Stochastic description. <i>Computer Research and Modeling</i> , 2021, 13, 587-609.	0.3	0
13	Mathematical Modeling of Invasive Carcinoma: Biomechanics of Small Groups of Cancer Cells. <i>Journal of Physics: Conference Series</i> , 2021, 1945, 012025.	0.4	0
14	Pattern Formation in Miscible Rotating Hele-Shaw Flows Induced by a Neutralization Reaction. <i>Microgravity Science and Technology</i> , 2021, 33, 1.	1.4	2
15	Chemoconvective Structures in a Rotating System of Reacting Liquids. <i>Journal of Applied Mechanics and Technical Physics</i> , 2021, 62, 1132-1144.	0.5	0
16	Biomechanical modeling of invasive breast carcinoma under a dynamic change in cell phenotype: collective migration of large groups of cells. <i>Biomechanics and Modeling in Mechanobiology</i> , 2020, 19, 723-743.	2.8	8
17	Switching Modes of Mixing Due to an Adjustable Gap in a Continuous-Flow Microreactor. <i>Actuators</i> , 2020, 9, 2.	2.3	3
18	Controlling mass transfer in a continuous-flow microreactor with a variable wall relief. <i>International Communications in Heat and Mass Transfer</i> , 2020, 113, 104522.	5.6	10

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19	Effect of channel geometry on a density wave induced by gravity and chemoconvection in miscible reacting fluids. AIP Advances, 2020, 10, 125222.	1.3	0
20	Modeling the spatial scenario of the transition to chaos via torus breakup in the problem with concentration-dependent diffusion. Computer Research and Modeling, 2020, 12, 9-31.	0.3	0
21	Phase transitions on partially contaminated surface under the influence of thermocapillary flow. Journal of Fluid Mechanics, 2019, 877, 495-533.	3.4	16
22	Closed-Form Non-Stationary Solutions for Thermo and Chemovibrational Viscous Flows. Fluids, 2019, 4, 175.	1.7	2
23	Spatial analog of the two-frequency torus breakup in a nonlinear system of reactive miscible fluids. Physical Review E, 2019, 100, 031104.	2.1	5
24	On the extent of surface stagnation produced jointly by insoluble surfactant and thermocapillary flow. Advances in Colloid and Interface Science, 2018, 255, 10-17.	14.7	11
25	Active Control of Thermal Convection in a Rectangular Loop by Changing its Spatial Orientation. Microgravity Science and Technology, 2018, 30, 43-52.	1.4	8
26	Adaptive Micromixer Based on the Solutocapillary Marangoni Effect in a Continuous-Flow Microreactor. Micromachines, 2018, 9, 600.	2.9	18
27	Repressilator with time-delayed gene expression. Part I. Deterministic description. Computer Research and Modeling, 2018, 10, 241-259.	0.3	2
28	Mathematical modeling of carcinoma growth with a dynamic change in the phenotype of cells. Computer Research and Modeling, 2018, 10, 879-902.	0.3	1
29	Chemo-elastic modeling of invasive carcinoma development accompanied by oncogenic epithelial-mesenchymal transition. AIP Conference Proceedings, 2017, , .	0.4	2
30	Internal density waves of shock type induced by chemoconvection in miscible reacting liquids. Technical Physics Letters, 2017, 43, 944-947.	0.7	3
31	Shock-wave-like structures induced by an exothermic neutralization reaction in miscible fluids. Physical Review E, 2017, 96, 053106.	2.1	19
32	Delay-induced oscillations in a thermal convection loop under negative feedback control with noise. Communications in Nonlinear Science and Numerical Simulation, 2017, 47, 109-126.	3.3	5
33	Effect of Convection on Formation of Adsorbed Surfactant Film under Dynamic Change of Solution Surface Area. Journal of Applied Mechanics and Technical Physics, 2017, 58, 1260-1272.	0.5	1
34	Chemo-mechanical modeling of tumor growth in elastic epithelial tissue. AIP Conference Proceedings, 2016, , .	0.4	3
35	Convective instability in a two-layer system of reacting fluids with concentration-dependent diffusion. Journal of Applied Mechanics and Technical Physics, 2016, 57, 1226-1238.	0.5	7
36	Spatial Effects of Delay-Induced Stochastic Oscillations in a Multi-scale Cellular System. Springer Proceedings in Complexity, 2016, , 93-103.	0.3	4

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37	Development of Concentration-Dependent Diffusion Instability in Reactive Miscible Fluids Under Influence of Constant or Variable Inertia. <i>Microgravity Science and Technology</i> , 2016, 28, 575-585.	1.4	35
38	Multiscale modeling of tumor growth induced by circadian rhythm disruption in epithelial tissue. <i>Journal of Biological Physics</i> , 2016, 42, 107-132.	1.5	23
39	Concentration-dependent diffusion instability in reactive miscible fluids. <i>Physical Review E</i> , 2015, 92, 011003.	2.1	41
40	Modeling of Tumour Growth Induced by Circadian Rhythm Disruption in Epithelial Tissue. <i>Emergence, Complexity and Computation</i> , 2015, , 295-306.	0.3	1
41	Convective instability in two-layer system of reacting fluids with concentration-dependent diffusion. <i>Computational Continuum Mechanics</i> , 2015, 8, 345-358.	0.5	2
42	On Rayleigh-Bénard Mechanism of Alignment of Salt Fingers in Reactive Immiscible Two-Layer Systems. <i>Microgravity Science and Technology</i> , 2014, 26, 293-303.	1.4	14
43	Thermogravitational mechanism of alignment of the front of chemoconvection patterns with an exothermic chemical reaction. <i>Journal of Applied Mechanics and Technical Physics</i> , 2014, 55, 199-208.	0.5	1
44	Synchronization of Circadian Rhythms at Scale of Gene, Cell and Whole Organism. <i>Emergence, Complexity and Computation</i> , 2014, , 345-355.	0.3	2
45	Multiscale mathematical modeling occurrence and growth of a tumour in an epithelial tissue. <i>Computer Research and Modeling</i> , 2014, 6, 585-604.	0.3	4
46	Computational Modeling of Collective Behavior of Panicked Crowd Escaping Multi-floor Branched Building. <i>Springer Proceedings in Complexity</i> , 2013, , 659-663.	0.3	1
47	Modeling of Spatially Extended Delay-Induced Circadian Oscillations Synchronized by Cell-to-Cell Communications. <i>Springer Proceedings in Complexity</i> , 2013, , 445-452.	0.3	0
48	Synchronization of circadian rhythms in the scale of a gene, a cell and a whole organism. <i>Computer Research and Modeling</i> , 2013, 5, 255-270.	0.3	4
49	Modeling of behavior of panicked crowd in multi-floor branched space. <i>Computer Research and Modeling</i> , 2013, 5, 491-508.	0.3	1
50	Effect of subcritical excitation of oscillations in stochastic systems with time delay. Part II. Control of fluid equilibrium. <i>Computer Research and Modeling</i> , 2012, 4, 369-389.	0.3	0
51	Buoyancy-driven pattern formation in reactive immiscible two-layer systems. <i>Chemical Engineering Science</i> , 2011, 66, 5723-5734.	3.8	29
52	Modelling spatio-temporal dynamics of circadian rhythms in <i>Neurospora crassa</i> . <i>Computer Research and Modeling</i> , 2011, 3, 191-213.	0.3	9
53	Effect of subcritical excitation of oscillations in stochastic systems with time delay. Part I. Regulation of gene expression. <i>Computer Research and Modeling</i> , 2011, 3, 421-438.	0.3	5
54	10.1007/s11454-008-2002-5. , 2010, 53, 146.		0

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55	Effect of Unsteady Forces on the Stability of Non-Isothermal Particulate Flow under Finite-Frequency Vibrations. <i>Microgravity Science and Technology</i> , 2009, 21, 153-158.	1.4	9
56	Control of chemoconvective Structures in a slab reactor. <i>Technical Physics</i> , 2008, 53, 146-153.	0.7	12
57	Control of chemo-hydrodynamic pattern formation by external localized cooling. <i>Europhysics Letters</i> , 2005, 69, 746-752.	2.0	29
58	Delay-induced stochastic oscillations in gene regulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 14593-14598.	7.1	498
59	<title>Non-Markovian processes in gene regulation (Keynote Address)</title>. , 2005, , .		9
60	On Marangoni convective patterns driven by an exothermic chemical reaction in two-layer systems. <i>Physics of Fluids</i> , 2004, 16, 1082-1096.	4.0	61
61	Non-linear dynamics and pattern formation in a vertical fluid layer heated from the side. <i>International Journal of Heat and Fluid Flow</i> , 2003, 24, 835-852.	2.4	21
62	Title is missing!. <i>Journal of Applied Mechanics and Technical Physics</i> , 2001, 42, 42-48.	0.5	3
63	On the stability of the pulsed convective flow with small heavy particles. <i>EPJ Applied Physics</i> , 2000, 10, 219-230.	0.7	7
64	Influence of gravitational precipitation of solid particles on thermal buoyancy convection. <i>Advances in Space Research</i> , 1998, 22, 1267-1270.	2.6	7
65	Co-symmetry breakdown in problems of thermal convection in porous medium. <i>Physica D: Nonlinear Phenomena</i> , 1995, 82, 398-417.	2.8	30