# Dmitry Bratsun

List of Publications by Year
in descending order

| 65 | 1,045 | 623734 | 434195 |
|---|---|---|---|
| papers | citations | 14 | 31 |
| | | h-index | g-index |

| 66 | 66 | 66 | 751 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | ARTICLE | IF | CITATIONS |
|---|---------|-----|-----------|
| 1 | Delay-induced stochastic oscillations in gene regulation. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 14593-14598. | 7.1 | 498 |
| 2 | On Marangoni convective patterns driven by an exothermic chemical reaction in two-layer systems. Physics of Fluids, 2004, 16, 1082-1096. | 4.0 | 61 |
| 3 | Concentration-dependent diffusion instability in reactive miscible fluids. Physical Review E, 2015, 92, 011003. | 2.1 | 41 |
| 4 | Development of Concentration-Dependent Diffusion Instability in Reactive Miscible Fluids Under Influence of Constant or Variable Inertia. Microgravity Science and Technology, 2016, 28, 575-585. | 1.4 | 35 |
| 5 | Co-symmetry breakdown in problems of thermal convection in porous medium. Physica D: Nonlinear Phenomena, 1995, 82, 398-417. | 2.8 | 30 |
| 6 | Control of chemo-hydrodynamic pattern formation by external localized cooling. Europhysics Letters, 2005, 69, 746-752. | 2.0 | 29 |
| 7 | Buoyancy-driven pattern formation in reactive immiscible two-layer systems. Chemical Engineering Science, 2011, 66, 5723-5734. | 3.8 | 29 |
| 8 | Multiscale modeling of tumor growth induced by circadian rhythm disruption in epithelial tissue. Journal of Biological Physics, 2016, 42, 107-132. | 1.5 | 23 |
| 9 | Non-linear dynamics and pattern formation in a vertical fluid layer heated from the side. International Journal of Heat and Fluid Flow, 2003, 24, 835-852. | 2.4 | 21 |
| 10 | Extended classification of the buoyancy-driven flows induced by a neutralization reaction in miscible fluids. Part 1. Experimental study. Journal of Fluid Mechanics, 2021, 916, . | 3.4 | 20 |
| 11 | Shock-wave-like structures induced by an exothermic neutralization reaction in miscible fluids. Physical Review E, 2017, 96, 053106. | 2.1 | 19 |
| 12 | Adaptive Micromixer Based on the Solutocapillary Marangoni Effect in a Continuous-Flow Microreactor. Micromachines, 2018, 9, 600. | 2.9 | 18 |
| 13 | Extended classification of the buoyancy-driven flows induced by a neutralization reaction in miscible fluids. Part 2. Theoretical study. Journal of Fluid Mechanics, 2021, 916, . | 3.4 | 17 |
| 14 | Phase transitions on partially contaminated surface under the influence of thermocapillary flow. Journal of Fluid Mechanics, 2019, 877, 495-533. | 3.4 | 16 |
| 15 | On Rayleigh-Bénard Mechanism of Alignment of Salt Fingers in Reactive Immiscible Two-Layer Systems. Microgravity Science and Technology, 2014, 26, 293-303. | 1.4 | 14 |
| 16 | Control of chemoconvective Structures in a slab reactor. Technical Physics, 2008, 53, 146-153. | 0.7 | 12 |
| 17 | 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 |
| 18 | Controlling mass transfer in a continuous-flow microreactor with a variable wall relief. International Communications in Heat and Mass Transfer, 2020, 113, 104522. | 5.6 | 10 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 19 | <title>Non-Markovian processes in gene regulation (Keynote Address)</title>. , 2005, , . | | 9 |
| 20 | Effect of Unsteady Forces on the Stability of Non-Isothermal Particulate Flow under Finite-Frequency Vibrations. Microgravity Science and Technology, 2009, 21, 153-158. | 1.4 | 9 |
| 21 | Modelling spatio-temporal dynamics of circadian rythms in Neurospora crassa. Computer Research and Modeling, 2011, 3, 191-213. | 0.3 | 9 |
| 22 | The effect of concentration-dependent diffusion on double-diffusive instability. Physics of Fluids, 2022, 34, . | 4.0 | 9 |
| 23 | 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 |
| 24 | Biomechanical modeling of invasive breast carcinoma under a dynamic change in cell phenotype: collective migration of large groups of cells. Biomechanics and Modeling in Mechanobiology, 2020, 19, 723-743. | 2.8 | 8 |
| 25 | Influence of gravitational precipitation of solid particles on thermal buoyancy convection. Advances in Space Research, 1998, 22, 1267-1270. | 2.6 | 7 |
| 26 | On the stability of the pulsed convective flow with small heavy particles. EPJ Applied Physics, 2000, 10, 219-230. | 0.7 | 7 |
| 27 | 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 |
| 28 | 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 |
| 29 | 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 |
| 30 | Effect of subcritical excitation of oscillations in stochastic systems with time delay. Part I. Regulation of gene expression. Computer Research and Modeling, 2011, 3, 421-438. | 0.3 | 5 |
| 31 | Spatial Effects of Delay-Induced Stochastic Oscillations in a Multi-scale Cellular System. Springer Proceedings in Complexity, 2016, , 93-103. | 0.3 | 4 |
| 32 | Mixing control in a continuous-flow microreactor using electro-osmotic flow. Mathematical Modelling of Natural Phenomena, 2021, 16, 49. | 2.4 | 4 |
| 33 | Synchronization of circadian rhythms in the scale of a gene, a cell and a whole organism. Computer Research and Modeling, 2013, 5, 255-270. | 0.3 | 4 |
| 34 | Multiscale mathematical modeling occurrence and growth of a tumour in an epithelial tissue. Computer Research and Modeling, 2014, 6, 585-604. | 0.3 | 4 |
| 35 | Title is missing!. Journal of Applied Mechanics and Technical Physics, 2001, 42, 42-48. | 0.5 | 3 |
| 36 | Chemo-mechanical modeling of tumor growth in elastic epithelial tissue. AIP Conference Proceedings, 2016, , . | 0.4 | 3 |

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|---|---------|----|-----------|
| 37 | Internal density waves of shock type induced by chemoconvection in miscible reacting liquids. Technical Physics Letters, 2017, 43, 944-947. | 0.7 | 3 |
| 38 | Switching Modes of Mixing Due to an Adjustable Gap in a Continuous-Flow Microreactor. Actuators, 2020, 9, 2. | 2.3 | 3 |
| 39 | Chemo-elastic modeling of invasive carcinoma development accompanied by oncogenic epithelial-mesenchymal transition. AIP Conference Proceedings, 2017, , . | 0.4 | 2 |
| 40 | Closed-Form Non-Stationary Solutionsfor Thermo and Chemovibrational Viscous Flows. Fluids, 2019, 4, 175. | 1.7 | 2 |
| 41 | Synchronization of Circadian Rhythms at Scale of Gene, Cell and Whole Organism. Emergence, Complexity and Computation, 2014, , 345-355. | 0.3 | 2 |
| 42 | Repressilator with time-delayed gene expression. Part I. Deterministic description. Computer Research and Modeling, 2018, 10, 241-259. | 0.3 | 2 |
| 43 | Convective instability in two-layer system of reacting fluids with concentration-dependent diffusion. Computational Continuum Mechanics, 2015, 8, 345-358. | 0.5 | 2 |
| 44 | Pattern Formation in Miscible Rotating Hele-Shaw Flows Induced by a Neutralization Reaction. Microgravity Science and Technology, 2021, 33, 1. | 1.4 | 2 |
| 45 | Protein pattern formation induced by the joint effect of noise and delay in a multi-cellular system. Mathematical Modelling of Natural Phenomena, 2022, 17, 16. | 2.4 | 2 |
| 46 | Thermogravitational mechanism of alignment of the front of chemoconvection patterns with an exothermic chemical reaction. Journal of Applied Mechanics and Technical Physics, 2014, 55, 199-208. | 0.5 | 1 |
| 47 | 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 |
| 48 | Computational Modeling of Collective Behavior of Panicked Crowd Escaping Multi-floor Branched Building. Springer Proceedings in Complexity, 2013, , 659-663. | 0.3 | 1 |
| 49 | Modeling of Tumour Growth Induced by Circadian Rhythm Disruption in Epithelial Tissue. Emergence, Complexity and Computation, 2015, , 295-306. | 0.3 | 1 |
| 50 | 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 |
| 51 | Modeling of behavior of panicked crowd in multi-floor branched space. Computer Research and Modeling, 2013, 5, 491-508. | 0.3 | 1 |
| 52 | Study of architectural forms of invasive carcinoma based on the measurement of pattern complexity. Mathematical Modelling of Natural Phenomena, 2022, 17, 15. | 2.4 | 1 |
| 53 | Convective instability in multicomponent mixtures with Soret effect. Computational Continuum Mechanics, 2022, 15, 67-82. | 0.5 | 1 |
| 54 | Centrifugal convection in a two-layer system of reacting miscible fluids. Journal of Physics: Conference Series, 2021, 1809, 012017. | 0.4 | 0 |

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|---|---------|----|-----------|
| 55 | Determination of the stability boundary of a two-layer system of miscible liquids with linear diffusion laws. Journal of Physics: Conference Series, 2021, 1809, 012018. | 0.4 | 0 |
| 56 | On mechanisms of mixing by forced and natural convection in microfluidic devices. Journal of Physics: Conference Series, 2021, 1809, 012001. | 0.4 | 0 |
| 57 | Stochastic Modeling of Protein Field with a Delayed Feedback. Journal of Physics: Conference Series, 2021, 1945, 012046. | 0.4 | 0 |
| 58 | Repressilator with time-delayed gene expression. Part II. Stochastic description. Computer Research and Modeling, 2021, 13, 587-609. | 0.3 | 0 |
| 59 | Mathematical Modeling of Invasive Carcinoma: Biomechanics of Small Groups of Cancer Cells. Journal of Physics: Conference Series, 2021, 1945, 012025. | 0.4 | 0 |
| 60 | 10.1007/s11454-008-2002-5. , 2010, 53, 146. | | 0 |
| 61 | Effect of subcritical excitation of oscillations in stochastic systems with time delay. Part II. Control of fluid equilibrium. Computer Research and Modeling, 2012, 4, 369-389. | 0.3 | 0 |
| 62 | Modeling of Spatially Extended Delay-Induced Circadian Oscillations Synchronized by Cell-to-Cell Communications. Springer Proceedings in Complexity, 2013, , 445-452. | 0.3 | 0 |
| 63 | 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 |
| 64 | 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 |
| 65 | Chemoconvective Structures in a Rotating System of Reacting Liquids. Journal of Applied Mechanics and Technical Physics, 2021, 62, 1132-1144. | 0.5 | 0 |