

Sergey A Suslov

List of Publications by Year in descending order

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64
papers

723
citations

516215

16
h-index

610482

24
g-index

68
all docs

68
docs citations

68
times ranked

490
citing authors

#	ARTICLE	IF	CITATIONS
1	Stability of natural convection flow in a tall vertical enclosure under non-Boussinesq conditions. International Journal of Heat and Mass Transfer, 1995, 38, 2143-2157.	2.5	53
2	Thermomagnetic convection in a vertical layer of ferromagnetic fluid. Physics of Fluids, 2008, 20, .	1.6	45
3	Stability of mixed-convection flow in a tall vertical channel under non-boussinesq conditions. Journal of Fluid Mechanics, 1995, 302, 91-115.	1.4	41
4	Numerical aspects of searching convective/absolute instability transition. Journal of Computational Physics, 2006, 212, 188-217.	1.9	38
5	Effects of coupling, bubble size, and spatial arrangement on chaotic dynamics of microbubble cluster in ultrasonic fields. Journal of the Acoustical Society of America, 2013, 134, 3425-3434.	0.5	38
6	Nonlinear analysis of convection flow in a tall vertical enclosure under non-Boussinesq conditions. Journal of Fluid Mechanics, 1997, 344, 1-41.	1.4	36
7	Arithmetic with optical topological charges in stepwise-excited Rb vapor. Optics Letters, 2016, 41, 1146.	1.7	34
8	Thermomagnetic convection in a layer of ferrofluid placed in a uniform oblique external magnetic field. Journal of Fluid Mechanics, 2015, 764, 316-348.	1.4	29
9	Stability of non-Boussinesq convection via the complex Ginzburg-Landau model. Fluid Dynamics Research, 2004, 35, 159-203.	0.6	24
10	Thermomagnetic convective flows in a vertical layer of ferrocolloid: Perturbation energy analysis and experimental study. Physical Review E, 2012, 86, 016301.	0.8	21
11	Nonlinear dynamic behavior of microscopic bubbles near a rigid wall. Physical Review E, 2012, 85, 066309.	0.8	21
12	Nonlinear stability of mixed convection flow under non-Boussinesq conditions. Part 1. Analysis and bifurcations. Journal of Fluid Mechanics, 1999, 398, 61-85.	1.4	20
13	Revisiting plane Couette-Poiseuille flows of a piezo-viscous fluid. Journal of Non-Newtonian Fluid Mechanics, 2008, 154, 170-178.	1.0	20
14	Effect of Ocean Spray on Vertical Momentum Transport Under High-Wind Conditions. Boundary-Layer Meteorology, 2011, 141, 1-20.	1.2	19
15	Magneto-gravitational convection in a vertical layer of ferrofluid in a uniform oblique magnetic field. Journal of Fluid Mechanics, 2016, 795, 847-875.	1.4	18
16	The use of ferrofluids for heat removal: Advantage or disadvantage?. Journal of Magnetism and Magnetic Materials, 2017, 431, 241-244.	1.0	18
17	Beamed UV sonoluminescence by aspherical air bubble collapse near liquid-metal microparticles. Scientific Reports, 2020, 10, 1501.	1.6	17
18	Amplified spontaneous emission at 523 nm in two-photon excited rubidium vapor. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 2478.	0.9	16

#	ARTICLE	IF	CITATIONS
19	Intermittent flow regimes near the convection threshold in ferromagnetic nanofluids. <i>Physical Review E</i> , 2015, 91, 013010.	0.8	15
20	Nonlinear stability of mixed convection flow under non-Boussinesq conditions. Part 2. Mean flow characteristics. <i>Journal of Fluid Mechanics</i> , 1999, 398, 87-108.	1.4	12
21	Acoustic frequency combs using gas bubble cluster oscillations in liquids: a proof of concept. <i>Scientific Reports</i> , 2021, 11, 38.	1.6	12
22	Model of Spray-Laden Near-Sea Atmospheric Layer in High Wind Conditions. <i>Journal of Physical Oceanography</i> , 2014, 44, 742-763.	0.7	11
23	Convection in Ferro-Nanofluids: Experiments and Theory. <i>Advances in Mechanics and Mathematics</i> , 2018, , .	0.2	11
24	Electromagnetically driven flow of electrolyte in a thin annular layer: axisymmetric solutions. <i>Journal of Fluid Mechanics</i> , 2017, 828, 573-600.	1.4	9
25	Effect of Evaporating Sea Spray on Heat Fluxes in a Marine Atmospheric Boundary Layer. <i>Journal of Physical Oceanography</i> , 2019, 49, 1927-1948.	0.7	9
26	Stability of plane Poiseuille-Couette flows of a piezo-viscous fluid. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2009, 156, 139-149.	1.0	8
27	Thermomagnetic instabilities in a vertical layer of ferrofluid: nonlinear analysis away from a critical point. <i>Fluid Dynamics Research</i> , 2016, 48, 061404.	0.6	8
28	On the definition of Landau constants in amplitude equations away from a critical point. <i>Royal Society Open Science</i> , 2018, 5, 180746.	1.1	8
29	Spiking dynamics of frequency upconverted field generated in continuous-wave excited rubidium vapors. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 2430.	0.9	8
30	Two-Temperature Nonequilibrium Model of a Marine Boundary Layer Laden with Evaporating Ocean Spray under High-Wind Conditions. <i>Journal of Physical Oceanography</i> , 2016, 46, 3083-3102.	0.7	7
31	Detection and analysis of coherent groups in three-dimensional fully-nonlinear potential wave fields. <i>Ocean Modelling</i> , 2016, 103, 73-86.	1.0	7
32	Neural echo state network using oscillations of gas bubbles in water. <i>Physical Review E</i> , 2022, 105, 044206.	0.8	7
33	Acoustic, Phononic, Brillouin Light Scattering and Faraday Wave-Based Frequency Combs: Physical Foundations and Applications. <i>Sensors</i> , 2022, 22, 3921.	2.1	7
34	Modeling of Sample Dynamics in Rectangular Asymmetrical Flow Field-Flow Fractionation Channels. <i>Analytical Chemistry</i> , 2000, 72, 4331-4345.	3.2	6
35	Interaction of gravitational and magnetic mechanisms of convection in a vertical layer of a magnetic fluid. <i>Physics Procedia</i> , 2010, 9, 167-170.	1.2	6
36	Two-equation model of mean flow resonances in subcritical flow systems. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2008, 1, 165-176.	0.6	6

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37	Oscillatory instability of convection in ferromagnetic nanofluid and in transformer oil. Fluid Dynamics Research, 2016, 48, 061407.	0.6	5
38	Spectrally wide acoustic frequency combs generated using oscillations of polydisperse gas bubble clusters in liquids. Physical Review E, 2021, 104, 035104.	0.8	5
39	Searching convective/absolute instability boundary for flows with fully numerical dispersion relation. Computer Physics Communications, 2001, 142, 322-325.	3.0	4
40	Magnetic flux density distribution in axial flux machine cores. IET Electric Power Applications, 2005, 152, 292.	1.4	4
41	Convective and absolute instabilities in non-Boussinesq mixed convection. Theoretical and Computational Fluid Dynamics, 2007, 21, 271-290.	0.9	4
42	A Petrov-Galerkin method for flows in cavities: enclosure of aspect ratio 8. International Journal for Numerical Methods in Fluids, 2002, 40, 999-1007.	0.9	3
43	Complex behaviour of a nanofluid near thermal convection onset: Its nature and features. International Journal of Heat and Mass Transfer, 2017, 104, 688-692.	2.5	3
44	Nonlinear interaction of thermogravitational waves and thermomagnetic rolls in a vertical layer of ferrofluid placed in a normal magnetic field. Physics of Fluids, 2019, 31, .	1.6	3
45	Intermittent dynamic bursting in vertically vibrated liquid drops. Physics of Fluids, 2020, 32, 124114.	1.6	3
46	Statistics of Wave Orbital Velocity in Deep Water Random Directional Wave Fields. , 2012, , .		3
47	Multi-mode spatio-temporal instability in non-Boussinesq convection. ANZIAM Journal, 0, 45, 149.	0.0	3
48	Investigation of sea spray effect on the vertical momentum transport using an Eulerian multi-fluid-type model. Journal of Physical Oceanography, 2021, , .	0.7	3
49	The influence of magnetic field on convection in an inclined ferrofluid layer heated from below. Journal of Physics: Conference Series, 2018, 1141, 012082.	0.3	2
50	Linear stability and saddle-node bifurcation of electromagnetically driven electrolyte flow in an annular layer. Journal of Fluid Mechanics, 2020, 887, .	1.4	2
51	The mechanism of vortex instability in electromagnetically driven flow in an annular thin layer of electrolyte. ANZIAM Journal, 0, 61, C214-C228.	0.0	2
52	Advection–dispersion in symmetric field–flow fractionation channels. Journal of Mathematical Chemistry, 1999, 26, 27-46.	0.7	1
53	Analysis of coupling between hydrodynamic and thermal instabilities in non-Boussinesq convection. Nonlinear Analysis: Theory, Methods & Applications, 2005, 63, e1435-e1443.	0.6	1
54	Analysis of instability patterns in non-Boussinesq mixed convection using a direct numerical evaluation of disturbance integrals. Computers and Fluids, 2009, 38, 590-601.	1.3	1

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55	Mechanism of nonlinear flow pattern selection in moderately non-Boussinesq mixed convection. <i>Physical Review E</i> , 2010, 81, 026301.	0.8	1
56	Numerical modelling of axisymmetric electromagnetically driven flows in thin layers. <i>ANZIAM Journal</i> , 0, 58, 46.	0.0	1
57	Governing Equations. <i>Advances in Mechanics and Mathematics</i> , 2018, , 11-19.	0.2	0
58	Theory of Thermogravitational and Thermomagnetic Convection in an Infinite Vertical Layer of Homogeneous Ferrofluid. <i>Advances in Mechanics and Mathematics</i> , 2018, , 21-103.	0.2	0
59	Experimental Methodology. <i>Advances in Mechanics and Mathematics</i> , 2018, , 105-126.	0.2	0
60	Ferrofluids: Composition and Physical Processes. <i>Advances in Mechanics and Mathematics</i> , 2018, , 1-9.	0.2	0
61	Experimental Investigation of Thermomagnetic Convection in Ferrofluids. <i>Advances in Mechanics and Mathematics</i> , 2018, , 165-244.	0.2	0
62	Experimental Investigation of Thermogravitational Convection in Ferrofluids. <i>Advances in Mechanics and Mathematics</i> , 2018, , 127-164.	0.2	0
63	UV-plasmonic germicidal radiation beams enabled by sonoluminescence of air bubbles near liquid-metal particles. , 2019, , .		0
64	Intensity spiking and oscillation in frequency-upconverted field from four-wave mixing in rubidium vapor. , 2021, , .		0