Dmitry A Vorotnikov

List of Publications by Year
in descending order

38 papers	439 citations	686830 13 h-index	752256 20 g-index
43 all docs	43 docs citations	43 times ranked	184 citing authors

#	Article	IF	Citations
1	Partial Differential Equations with Quadratic Nonlinearities Viewed as Matrix-Valued Optimal Ballistic Transport Problems. Archive for Rational Mechanics and Analysis, 2022, 243, 1653.	1.1	0
2	The Schrödinger problem on the non-commutative Fisher-Rao space. Calculus of Variations and Partial Differential Equations, 2021, 60, 1.	0.9	3
3	Convex Sobolev inequalities related to unbalanced optimal transport. Journal of Differential Equations, 2020, 268, 3705-3724.	1.1	2
4	Nonlinear Fokker-Planck equations with reaction as gradient flows of the free energy. Journal of Functional Analysis, 2020, 278, 108310.	0.7	2
5	On Optimal Transport of Matrix-Valued Measures. SIAM Journal on Mathematical Analysis, 2020, 52, 2849-2873.	0.9	10
6	Spherical Hellinger--Kantorovich Gradient Flows. SIAM Journal on Mathematical Analysis, 2019, 51, 2053-2084.	0.9	9
7	The gradient flow of the potential energy on the space of arcs. Calculus of Variations and Partial Differential Equations, 2019, 58, 1.	0.9	3
8	Uniformly Compressing Mean Curvature Flow. Journal of Geometric Analysis, 2019, 29, 3055-3097.	0.5	3
9	On time adaptive critical variable exponent vectorial diffusion flows and their applications in image processing I: Analysis. Nonlinear Analysis: Theory, Methods & Applications, 2018, 168, 176-197.	0.6	3
10	Generalized solutions for inextensible string equations. Journal of Differential Equations, 2017, 262, 3610-3641.	1.1	4
11	A new multicomponent Poincaré–Beckner inequality. Journal of Functional Analysis, 2017, 272, 3281-3310.	0.7	4
12	On the Bulk Velocity of Brownian Ratchets. SIAM Journal on Mathematical Analysis, 2016, 48, 950-980.	0.9	0
13	A fitness-driven cross-diffusion system from population dynamics as a gradient flow. Journal of Differential Equations, 2016, 261, 2784-2808.	1.1	12
14	Analysis of adaptive forward-backward diffusion flows with applications in image processing. Inverse Problems, 2015, 31, 105008.	1.0	14
15	Multiscale Tikhonov-Total Variation Image Restoration Using Spatially Varying Edge Coherence Exponent. IEEE Transactions on Image Processing, 2015, 24, 5220-5235.	6.0	64
16	On a System of Adaptive Coupled PDEs for Image Restoration. Journal of Mathematical Imaging and Vision, 2014, 48, 35-52.	0.8	23
17	Analytical aspects of the Brownian motor effect in randomly flashing ratchets. Journal of Mathematical Biology, 2014, 68, 1677-1705.	0.8	6
18	Weighted and well-balanced anisotropic diffusion scheme for image denoising and restoration. Nonlinear Analysis: Real World Applications, 2014, 17, 33-46.	0.9	30

#	Article	IF	Citations
19	Weak solutions for a bioconvection model related to Bacillus subtilis. Communications in Mathematical Sciences, 2014, 12, 545-563.	0.5	33
20	Anomalous Diffusion in Polymers: Long-Time Behaviour. Fields Institute Communications, 2013, , 481-496.	0.6	0
21	Global generalized solutions for Maxwell-alpha and Euler-alpha equations. Nonlinearity, 2012, 25, 309-327.	0.6	14
22	Asymptotic behavior of the non-autonomous 3D Navier–Stokes problem with coercive force. Journal of Differential Equations, 2011, 251, 2209-2225.	1.1	17
23	On the well-posedness of a two-phase minimization problem. Journal of Mathematical Analysis and Applications, 2011, 378, 159-168.	0.5	3
24	The flashing ratchet and unidirectional transport of matter. Discrete and Continuous Dynamical Systems - Series B, 2011, 16, 963-971.	0.5	3
25	On repeated concentration and periodic regimes with anomalous diffusion in polymers. Sbornik Mathematics, 2010, 201, 57-77.	0.2	1
26	Longitudinal normals and the existence of acoustic axes in crystals. Nonlinear Analysis: Real World Applications, 2009, 10, 798-809.	0.9	1
27	Weak solvability for equations of viscoelastic diffusion in polymers with variable coefficients. Journal of Differential Equations, 2009, 246, 1038-1056.	1.1	5
28	Trajectory and Global Attractors of the Boundary Value Problem for Autonomous Motion Equations of Viscoelastic Medium. Journal of Mathematical Fluid Mechanics, 2008, 10, 19-44.	0.4	26
29	Approximating-topological methods in some problems of hydrodynamics. Journal of Fixed Point Theory and Applications, 2008, 3, 23-49.	0.6	18
30	Dissipative solutions for equations of viscoelastic diffusion in polymers. Journal of Mathematical Analysis and Applications, 2008, 339, 876-888.	0.5	18
31	Weak solutions and attractors for motion equations for an objective model of viscoelastic medium. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1060105-1060106.	0.2	1
32	Existence of solutions for motion equations for an objective model of viscoelastic medium. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 1060107-1060108.	0.2	0
33	On the convergence of solutions of the regularized problem for motion equations of Jeffreys viscoelastic medium to solutions of the original problem. Journal of Mathematical Sciences, 2007, 144, 4398-4408.	0.1	3
34	Uniform attractors for non-autonomous motion equations of viscoelastic medium. Journal of Mathematical Analysis and Applications, 2007, 325, 438-458.	0.5	20
35	Topological approach to investigation of acoustic axes in crystals. Crystallography Reports, 2006, 51, 104-109.	0.1	2
36	On the trajectory and global attractors for the equations of motion of a visco-elastic medium. Russian Mathematical Surveys, 2006, 61, 368-370.	0.2	4

#	Article	IF	Citations
37	On the existence of weak solutions for the initial-boundary value problem in the Jeffreys model of motion of a viscoelastic medium. Abstract and Applied Analysis, 2004, 2004, 815-829.	0.3	15
38	On the solvability of the initial-value problem for the motion equations of nonlinear viscoelastic medium in the whole space. Nonlinear Analysis: Theory, Methods & Applications, 2004, 58, 631-656.	0.6	4