Sergey Zelik

List of Publications by Year in Descending Order

117 papers	2,348 citations	26 h-index	45 g-index
120 ext. papers	2,602 ext. citations	1.3 avg, IF	5.37 L-index

#	Paper	IF	Citations
117	Inertial Manifolds via Spatial Averaging Revisited. *SIAM Journal on Mathematical Analysis*, **2022**, 54, 268-305	1.7	1
116	Sharp upper and lower bounds of the attractor dimension for 3D damped Euler–Bardina equations. *Physica D: Nonlinear Phenomena*, **2022**, 432, 133156	3.3	4
115	Trajectory attractors for 3D damped Euler equations and their approximation. *Discrete and Continuous Dynamical Systems - Series S*, **2022**,	2.8	
114	Applications of the Lieb–Thirring and other bounds for orthonormal systems in mathematical hydrodynamics **2022**, 583-608		0
113	Sharp Dimension Estimates for the Attractors of the Regularized Damped Euler System. *Doklady Mathematics*, **2021**, 104, 169-172	0.7	1
112	Cesaro summation by spheres of lattice sums and Madelung constants. *Communications on Pure and Applied Analysis*, **2021**, 20, 4195	1.9	
111	Infinite energy solutions for weakly damped quintic wave equations in R³. *Transactions of the American Mathematical Society*, **2021**, 374, 3093-3129	1	0
110	Sharp dimension estimates of the attractor of the damped 2D Euler–Bardina equations **2021**, 209-229		5
109	Validity of the hyperbolic Whitham modulation equations in Sobolev spaces. *Journal of Differential Equations*, **2021**, 274, 971-995	2.1	2
108	Asymptotic Regularity and Attractors for Slightly Compressible Brinkman–Forchheimer Equations. *Applied Mathematics and Optimization*, **2021**, 84, 3137-3171	1.5	0
107	Uniform attractors for measure-driven quintic wave equations. *Russian Mathematical Surveys*, **2020**, 75, 253-320	1.2	2
106	Lieb–Thirring constant on the sphere and on the torus. *Journal of Functional Analysis*, **2020**, 279, 108784	1.4	1
105	Inertial manifolds for the hyperbolic relaxation of semilinear parabolic equations. *Discrete and Continuous Dynamical Systems - Series B*, **2019**, 24, 1115-1142	1.3	3
104	On the Lieb-Thirring Constant on the Torus. *Mathematical Notes*, **2019**, 106, 1019-1023	0.5	1
103	Vanishing viscosity limit for global attractors for the damped Navier–Stokes system with stress free boundary conditions. *Physica D: Nonlinear Phenomena*, **2018**, 376-377, 31-38	3.3	3
102	Hyperbolic relaxation of the 2D Navier–Stokes equations in a bounded domain. *Physica D: Nonlinear Phenomena*, **2018**, 376-377, 171-179	3.3	3
101	Inertial manifolds for 1D reaction-diffusion-advection systems. Part II: periodic boundary conditions. *Communications on Pure and Applied Analysis*, **2018**, 17, 285-317	1.9	4

100	Large dispersion, averaging and attractors: three 1D paradigms. *Nonlinearity*, **2018**, 31, R317-R350	1.7	7
99	Inertial manifolds for 1D reaction-diffusion-advection systems. Part I: Dirichlet and Neumann boundary conditions. *Communications on Pure and Applied Analysis*, **2017**, 16, 2357-2376	1.9	9
98	Strong trajectory and global begin{document} $mathbf{W^{1,p}}$ end{document}-attractors for the damped-driven Euler system in begin{document} $mathbb R^2$ end{document}. *Discrete and Continuous Dynamical Systems - Series B*, **2017**, 22, 1835-1855	1.3	2
97	Preventing Blow up by Convective Terms in Dissipative PDEs. *Journal of Mathematical Fluid Mechanics*, **2016**, 18, 463-479	1.4	
96	Finite dimensionality of the attractor for the hyperbolic Cahn–Hilliard–Oono equation in. *Mathematical Methods in the Applied Sciences*, **2016**, 39, 1254-1267	2.3	3
95	One-Dimensional Interpolation Inequalities, Carlson–Landau Inequalities, and Magnetic Schrödinger Operators. *International Mathematics Research Notices*, **2016**, 2016, 1190-1222	0.8	8
94	On a singular heat equation with dynamic boundary conditions. *Asymptotic Analysis*, **2016**, 97, 27-59	0.7	1
93	Attractors for Damped Quintic Wave Equations in Bounded Domains. *Annales Henri Poincare*, **2016**, 17, 2555-2584	1.2	22
92	Global well-posedness and attractors for the hyperbolic Cahn–Hilliard–Oono equation in the whole space. *Mathematical Models and Methods in Applied Sciences*, **2016**, 26, 1357-1384	3.5	4
91	Computing Interacting Multi-fronts in One Dimensional Real Ginzburg Landau Equations. *Journal of Scientific Computing*, **2015**, 63, 799-819	2.3	1
90	Sharp interpolation inequalities for discrete operators and applications. *Bulletin of Mathematical Sciences*, **2015**, 5, 19-57	0.9	
89	Sharp interpolation inequalities for discrete operators. *Doklady Mathematics*, **2015**, 91, 215-219	0.7	
88	Infinite Energy Solutions for Dissipative Euler Equations in ({mathbb{R}^2}). *Journal of Mathematical Fluid Mechanics*, **2015**, 17, 513-532	1.4	6
87	A note on a strongly damped wave equation with fast growing nonlinearities. *Journal of Mathematical Physics*, **2015**, 56, 011501	1.2	3
86	Inertial manifolds for the 3D Cahn-Hilliard equations with periodic boundary conditions. *Communications on Pure and Applied Analysis*, **2015**, 14, 2069-2094	1.9	11
85	Upper bounds for the attractor dimension of damped Navier-Stokes equations in $mathbb R^2$. *Discrete and Continuous Dynamical Systems*, **2015**, 36, 2085-2102	2	9
84	Strong uniform attractors for non-autonomous dissipative PDEs with non translation-compact external forces. *Discrete and Continuous Dynamical Systems - Series B*, **2015**, 20, 781-810	1.3	12
83	Energy growth for a nonlinear oscillator coupled to a monochromatic wave. *Regular and Chaotic Dynamics*, **2014**, 19, 513-522	1.6	

82	Green's function asymptotics and sharp interpolation inequalities. *Russian Mathematical Surveys*, **2014**, 69, 209-260	1.2	5
81	Infinite-energy solutions for the Cahn–Hilliard equation in cylindrical domains. *Mathematical Methods in the Applied Sciences*, **2014**, 37, 1884-1908	2.3	5
80	Attractors for the nonlinear elliptic boundary value problems and their parabolic singular limit. *Communications on Pure and Applied Analysis*, **2014**, 13, 2059-2093	1.9	1
79	Infinite-energy solutions for the Navier-Stokes equations in a strip revisited. *Communications on Pure and Applied Analysis*, **2014**, 13, 1361-1393	1.9	5
78	Smooth attractors for the quintic wave equations with fractional damping. *Asymptotic Analysis*, **2014**, 87, 191-221	0.7	12
77	Degenerate Hyperbolic Conservation Laws with Dissipation: Reduction to and Validity of a Class of Burgers-Type Equations. *Archive for Rational Mechanics and Analysis*, **2014**, 214, 671-716	2.3	3
76	Regular attractors of autonomous and nonautonomous dynamical systems. *Doklady Mathematics*, **2014**, 89, 92-97	0.7	1
75	Inertial manifolds and finite-dimensional reduction for dissipative PDEs*. *Proceedings of the Royal Society of Edinburgh Section A: Mathematics*, **2014**, 144, 1245-1327	1	28
74	Recent progress in attractors for quintic wave equations. *Mathematica Bohemica*, **2014**, 139, 657-665		7
73	On a generalized Cahn-Hilliard equation with biological applications. *Discrete and Continuous Dynamical Systems - Series B*, **2014**, 19, 2013-2026	1.3	25
72	On the vanishing-viscosity limit in parabolic systems with rate-independent dissipation terms. *Annali Della Scuola Normale Superiore Di Pisa Classe Di Scienze*, **2014**, 67-135	0.9	3
71	Counterexamples to regularity of Mañé projections in the theory of attractors. *Russian Mathematical Surveys*, **2013**, 68, 199-226	1.2	9
70	Global solvability and blow up for the convective Cahn-Hilliard equations with concave potentials. *Journal of Mathematical Physics*, **2013**, 54, 041502	1.2	3
69	Infinite Energy Solutions for Damped Navier–Stokes Equations in ({mathbb{R}^2}). *Journal of Mathematical Fluid Mechanics*, **2013**, 15, 717-745	1.4	22
68	Exponential attractors for random dynamical systems and applications. *Stochastics and Partial Differential Equations: Analysis and Computations*, **2013**, 1, 241-281	0.9	6
67	Regular attractors and nonautonomous perturbations of them. *Sbornik Mathematics*, **2013**, 204, 1-42	1	11
66	Asymptotic expansions and extremals for the critical Sobolev and Gagliardo–Nirenberg inequalities on a torus. *Proceedings of the Royal Society of Edinburgh Section A: Mathematics*, **2013**, 143, 445-482	1	14
65	Asymptotic uniform boundedness of energy solutions to the Penrose-Fife model. *Journal of Evolution Equations*, **2012**, 12, 863-890	1.2	8

64	Smooth attractors for the Brinkman-Forchheimer equations with fast growing nonlinearities. *Communications on Pure and Applied Analysis*, **2012**, 11, 2037-2054	1.9	43
63	Existence of solutions and separation from singularities for a class of fourth order degenerate parabolic equations. *Transactions of the American Mathematical Society*, **2012**, 365, 3799-3829	1	8
62	Long-range interaction and synchronization of oscillating dissipative solitons. *Physical Review Letters*, **2012**, 108, 263906	7.4	50
61	Global well-posedness in uniformly local spaces for the Cahn-Hilliard equation in $mathbb{R}^3$. *Communications on Pure and Applied Analysis*, **2012**, 12, 461-480	1.9	3
60	Strong trajectory attractors for dissipative Euler equations. *Journal Des Mathematiques Pures Et Appliquees*, **2011**, 96, 395-407	1.7	24
59	The Cahn-Hilliard Equation with Logarithmic Potentials. *Milan Journal of Mathematics*, **2011**, 79, 561-596	1	112
58	Continuous families of exponential attractors for singularly perturbed equations with memory. *Proceedings of the Royal Society of Edinburgh Section A: Mathematics*, **2010**, 140, 329-366	1	13
57	The Cahn-Hilliard equation with singular potentials and dynamic boundary conditions. *Discrete and Continuous Dynamical Systems*, **2010**, 28, 275-310	2	48
56	Analytical proof of space-time chaos in Ginzburg-Landau equations. *Discrete and Continuous Dynamical Systems*, **2010**, 28, 1713-1751	2	6
55	Trajectory and smooth attractors for Cahn□Hilliard equations with inertial term. *Nonlinearity*, **2010**, 23, 707-737	1.7	26
54	Strong trajectory attractor for a dissipative reaction-diffusion system. *Doklady Mathematics*, **2010**, 82, 869-873	0.7	22
53	Finite-dimensional global and exponential attractors for the reaction□diffusion problem with an obstacle potential. *Nonlinearity*, **2009**, 22, 2733-2760	1.7	5
52	Finite-dimensional attractors and exponential attractors for degenerate doubly nonlinear equations. *Mathematical Methods in the Applied Sciences*, **2009**, 32, 1638-1668	2.3	17
51	On the 3D Cahn□Hilliard equation with inertial term. *Journal of Evolution Equations*, **2009**, 9, 371-404	1.2	35
50	Finite-dimensional attractors for the quasi-linear strongly-damped wave equation. *Journal of Differential Equations*, **2009**, 247, 1120-1155	2.1	62
49	A Gronwall-type lemma with parameter and dissipative estimates for PDEs. *Nonlinear Analysis: Theory, Methods & Applications*, **2009**, 70, 2337-2343	1.3	12
48	On the 2D Cahn□Hilliard Equation with Inertial Term. *Communications in Partial Differential Equations*, **2009**, 34, 137-170	1.6	49
47	Existence and longtime behavior of a biofilm model. *Communications on Pure and Applied Analysis*, **2009**, 8, 509-531	1.9	28

46	Doubly nonlinear Cahn-Hilliard-Gurtin equations. *Hokkaido Mathematical Journal*, **2009**, 38,	2.8	11
45	Multi-pulse evolution and space-time chaos in dissipative systems. *Memoirs of the American Mathematical Society*, **2009**, 198, 0-0	1.5	9
44	Weak Spatially Nondecaying Solutions of 3D Navier Stokes Equations in Cylindrical Domains **2008**, 255-327		7
43	Chapter 3 Attractors for Dissipative Partial Differential Equations in Bounded and Unbounded Domains. *Handbook of Differential Equations: Evolutionary Equations*, **2008**, 4, 103-200		158
42	Finite- and infinite-dimensional attractors for porous media equations. *Proceedings of the London Mathematical Society*, **2008**, 96, 51-77	1.2	23
41	On the strongly damped wave equation with memory. *Indiana University Mathematics Journal*, **2008**, 57, 757-780	0.6	21
40	Attractors for Semi-Linear Equations of Viscoelasticity with Very Low Dissipation. *Rocky Mountain Journal of Mathematics*, **2008**, 38,	1.4	25
39	Finite-dimensionality of attractors for degenerate equations of elliptic parabolic type. *Nonlinearity*, **2007**, 20, 1773-1797	1.7	14
38	Well-posedness and long time behavior of a parabolic-hyperbolic phase-field system with singular potentials. *Mathematische Nachrichten*, **2007**, 280, 1475-1509	0.8	32
37	Infinite-Dimensional Hyperbolic Sets and Spatio-Temporal Chaos in Reaction Diffusion Systems in ({mathbb{R}^{n}}). *Journal of Dynamics and Differential Equations*, **2007**, 19, 333-389	1.3	6
36	SPATIALLY NONDECAYING SOLUTIONS OF THE 2D NAVIER-STOKES EQUATION IN A STRIP. *Glasgow Mathematical Journal*, **2007**, 49, 525-588	0.4	29
35	Chaotic bound state of localized structures in the complex Ginzburg-Landau equation. *Physical Review E*, **2007**, 75, 045601	2.4	26
34	A result on the existence of global attractors for semigroups of closed operators. *Communications on Pure and Applied Analysis*, **2007**, 6, 481-486	1.9	52
33	Global and exponential attractors for 3-D wave equations with displacement dependent damping. *Mathematical Methods in the Applied Sciences*, **2006**, 29, 1291-1306	2.3	19
32	Global averaging and parametric resonances in damped semilinear wave equations. *Proceedings of the Royal Society of Edinburgh Section A: Mathematics*, **2006**, 136, 1053-1097	1	17
31	Smooth attractors for strongly damped wave equations. *Nonlinearity*, **2006**, 19, 1495-1506	1.7	102
30	Spatial and Dynamical Chaos Generated by Reaction Diffusion Systems in Unbounded Domains. *Journal of Dynamics and Differential Equations*, **2006**, 19, 1-74	1.3	13
29	A remark on the damped wave equation. *Communications on Pure and Applied Analysis*, **2006**, 5, 611-616	1.9	28

28	Exponential attractors and finite-dimensional reduction for non-autonomous dynamical systems*. *Proceedings of the Royal Society of Edinburgh Section A: Mathematics*, **2005**, 135, 703-730	1	77
27	Exponential attractors for the Cahn–Hilliard equation with dynamic boundary conditions. *Mathematical Methods in the Applied Sciences*, **2005**, 28, 709-735	2.3	75
26	Global and exponential attractors for nonlinear reaction–diffusion systems in unbounded domains. *Proceedings of the Royal Society of Edinburgh Section A: Mathematics*, **2004**, 134, 271-315	1	9
25	Robust exponential attractors for Cahn-Hilliard type equations with singular potentials. *Mathematical Methods in the Applied Sciences*, **2004**, 27, 545-582	2.3	102
24	The long-time behaviour of the thermoconvective flow in a porous medium. *Mathematical Methods in the Applied Sciences*, **2004**, 27, 907-930	2.3	3
23	Exponential attractors for a singularly perturbed Cahn-Hilliard system. *Mathematische Nachrichten*, **2004**, 272, 11-31	0.8	64
22	Classification of positive solutions of semilinear elliptic equations. *Comptes Rendus Mathematique*, **2004**, 338, 7-11	0.4	3
21	Infinite-dimensional exponential attractors for nonlinear reaction-diffusion systems in unbounded domains and their approximation. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2004**, 460, 1107-1129	2.4	10
20	Asymptotic regularity of solutions of a nonautonomous damped wave equation with a critical growth exponent. *Communications on Pure and Applied Analysis*, **2004**, 3, 921-934	1.9	62
19	Asymptotic regularity of solutions of singularly perturbed damped wave equations with supercritical nonlinearities. *Discrete and Continuous Dynamical Systems*, **2004**, 11, 351-392	2	33
18	Attractors of reaction-diffusion systems in unbounded domains and their spatial complexity. *Communications on Pure and Applied Mathematics*, **2003**, 56, 584-637	2.5	51
17	Infinite dimensional exponential attractors for a non–autonomous reaction–diffusion system. *Mathematische Nachrichten*, **2003**, 248-249, 72-96	0.8	16
16	Homoclinic bifurcations and dimension of attractors for damped nonlinear hyperbolic equations. *Nonlinearity*, **2003**, 16, 2163-2198	1.7	2
15	Uniform exponential attractors for a singularly perturbed damped wave equation. *Discrete and Continuous Dynamical Systems*, **2003**, 10, 211-238	2	94
14	Attractors of the reaction-diffusion systems with rapidly oscillating coefficients and their homogenization. *Annales De LlInstitut Henri Poincare (C) Analyse Non Lineaire*, **2002**, 19, 961-989	1.6	22
13	The attractor for a nonlinear reaction-diffusion system in an unbounded domain. *Communications on Pure and Applied Mathematics*, **2001**, 54, 625-688	2.5	89
12	The attractor for a nonlinear hyperbolic equation in the unbounded domain. *Discrete and Continuous Dynamical Systems*, **2001**, 7, 593-641	2	33
11	Exponential attractors for a nonlinear reaction-diffusion system in. *Comptes Rendus Mathematique*, **2000**, 330, 713-718		118

10	The attractor of a quasilinear hyperbolic equation with dissipation in Rn: Dimension and entropy. *Mathematical Notes*, **2000**, 67, 248-251	0.5	3
9	Regular attractor for a non-linear elliptic system in a cylindrical domain. *Sbornik Mathematics*, **1999**, 190, 803-834	1	6
8	An attractor of a nonlinear system of reaction-diffusion equations in(mathbb{R}^n) and estimates of its entropyand estimates of its entropy. *Mathematical Notes*, **1999**, 65, 790-793	0.5	10
7	The mathieu-hill operator equation with dissipation and estimates of its instability index. *Mathematical Notes*, **1997**, 61, 451-464	0.5	1
6	Boundedness of the solutions of a nonlinear elliptic system in a cylindrical domain. *Mathematical Notes*, **1997**, 61, 365-369	0.5	1
5	The trajectory attractor of a non-linear elliptic system in a cylindrical domain. *Sbornik Mathematics*, **1996**, 187, 1755-1789	1	10
4	A trajectory attractor of a nonlinear elliptic system in an unbounded domain. *Mathematical Notes*, **1996**, 63, 120-123	0.5	2
3	Almost-periodic solutions of a class of linear hyperbolic equations. *Mathematical Notes*, **1994**, 56, 865-868	0.5	
2	Reaction-diffusion systems with supercritical nonlinearities revisited. *Mathematische Annalen*,1	1	
1	Kwak Transform and Inertial Manifolds revisited. *Journal of Dynamics and Differential Equations*,1	1.3	1