Sergey Zelik

List of Publications by Year
in descending order

118 papers	3,226 citations	147726 31 h-index	168321 53 g-index
120 all docs	120 docs citations	120 times ranked	720 citing authors

#	ARTICLE	IF	CITATIONS
1	Chapter 3 Attractors for Dissipative Partial Differential Equations in Bounded and Unbounded Domains. Handbook of Differential Equations: Evolutionary Equations, 2008, 4, 103-200.	0.9	219
2	Exponential attractors for a nonlinear reaction-diffusion system in. Comptes Rendus Mathematique, 2000, 330, 713-718.	0.5	156
3	Robust exponential attractors for Cahn-Hilliard type equations with singular potentials. Mathematical Methods in the Applied Sciences, 2004, 27, 545-582.	1.2	155
4	The Cahn-Hilliard Equation with Logarithmic Potentials. Milan Journal of Mathematics, 2011, 79, 561-596.	0.7	148
5	Smooth attractors for strongly damped wave equations. Nonlinearity, 2006, 19, 1495-1506.	0.6	138
6	The attractor for a nonlinear reaction-diffusion system in an unbounded domain. Communications on Pure and Applied Mathematics, 2001, 54, 625-688.	1.2	112
7	Uniform exponential attractors for a singularly perturbed damped wave equation. Discrete and Continuous Dynamical Systems, 2003, 10, 211-238.	0.5	111
8	Exponential attractors for the Cahn-Hilliard equation with dynamic boundary conditions. Mathematical Methods in the Applied Sciences, 2005, 28, 709-735.	1.2	101
9	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.	0.8	99
10	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.	0.4	85
11	Finite-dimensional attractors for the quasi-linear strongly-damped wave equation. Journal of Differential Equations, 2009, 247, 1120-1155.	1.1	84
12	Exponential attractors for a singularly perturbed Cahn-Hilliard system. Mathematische Nachrichten, 2004, 272, 11-31.	0.4	82
13	Long-Range Interaction and Synchronization of Oscillating Dissipative Solitons. Physical Review Letters, 2012, 108, 263906.	2.9	68
14	On the 2D Cahn–Hilliard Equation with Inertial Term. Communications in Partial Differential Equations, 2009, 34, 137-170.	1.0	65
15	A result on the existence of global attractors for semigroups of closed operators. Communications on Pure and Applied Analysis, 2007, 6, 481-486.	0.4	65
16	Smooth attractors for the Brinkman-Forchheimer equations with fast growing nonlinearities. Communications on Pure and Applied Analysis, 2012, 11, 2037-2054.	0.4	58
17	Attractors of reaction-diffusion systems in unbounded domains and their spatial complexity. Communications on Pure and Applied Mathematics, 2003, 56, 584-637.	1.2	57
18	The Cahn-Hilliard equation with singular potentials and dynamic boundary conditions. Discrete and Continuous Dynamical Systems, 2010, 28, 275-310.	0.5	56

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19	Inertial manifolds and finite-dimensional reduction for dissipative PDEs. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2014, 144, 1245-1327.	0.8	53
20	The attractor for a nonlinear hyperbolic equation in the unbounded domain. Discrete and Continuous Dynamical Systems, 2001, 7, 593-641.	0.5	51
21	A remark on the damped wave equation. Communications on Pure and Applied Analysis, 2006, 5, 611-616.	0.4	47
22	On the 3D Cahn–Hilliard equation with inertial term. Journal of Evolution Equations, 2009, 9, 371-404.	0.6	45
23	Asymptotic regularity of solutions of singularly perturbed damped wave equations with supercritical nonlinearities. Discrete and Continuous Dynamical Systems, 2004, 11, 351-392.	0.5	45
24	Well-posedness and long time behavior of a parabolic-hyperbolic phase-field system with singular potentials. Mathematische Nachrichten, 2007, 280, 1475-1509.	0.4	42
25	Attractors for Semi-Linear Equations of Viscoelasticity with Very Low Dissipation. Rocky Mountain Journal of Mathematics, 2008, 38, .	0.2	40
26	Attractors for Damped Quintic Wave Equations in Bounded Domains. Annales Henri Poincare, 2016, 17, 2555-2584.	0.8	37
27	Trajectory and smooth attractors for Cahn–Hilliard equations with inertial term. Nonlinearity, 2010, 23, 707-737.	0.6	36
28	Existence and longtime behavior of a biofilm model. Communications on Pure and Applied Analysis, 2009, 8, 509-531.	0.4	34
29	SPATIALLY NONDECAYING SOLUTIONS OF THE 2D NAVIER-STOKES EQUATION IN A STRIP. Glasgow Mathematical Journal, 2007, 49, 525-588.	0.2	33
30	Strong trajectory attractors for dissipative Euler equations. Journal Des Mathematiques Pures Et Appliquees, 2011, 96, 395-407.	0.8	33
31	Chaotic bound state of localized structures in the complex Ginzburg-Landau equation. Physical Review E, 2007, 75, 045601.	0.8	32
32	Finite- and infinite-dimensional attractors for porous media equations. Proceedings of the London Mathematical Society, 2008, 96, 51-77.	0.6	32
33	On a generalized Cahn-Hilliard equation with biological applications. Discrete and Continuous Dynamical Systems - Series B, 2014, 19, 2013-2026.	0.5	30
34	Strong trajectory attractor for a dissipative reaction-diffusion system. Doklady Mathematics, 2010, 82, 869-873.	0.1	29
35	Attractors of the reaction-diffusion systems with rapidly oscillating coefficients and their homogenization. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2002, 19, 961-989.	0.7	28
36	On the strongly damped wave equation with memory. Indiana University Mathematics Journal, 2008, 57, 757-780.	0.4	28

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37	Infinite Energy Solutions for Damped Navier–Stokes Equations in $${\mathbb{R}^2}$$. Journal of Mathematical Fluid Mechanics, 2013, 15, 717-745.	0.4	28
38	Infinite dimensional exponential attractors for a non–autonomous reaction–diffusion system. Mathematische Nachrichten, 2003, 248-249, 72-96.	0.4	26
39	Global and exponential attractors for 3-D wave equations with displacement dependent damping. Mathematical Methods in the Applied Sciences, 2006, 29, 1291-1306.	1.2	25
40	Global averaging and parametric resonances in damped semilinear wave equations. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2006, 136, 1053-1097.	0.8	22
41	Multi-pulse evolution and space-time chaos in dissipative systems. Memoirs of the American Mathematical Society, 2009, 198, 0-0.	0.5	22
42	Finite–dimensional attractors and exponential attractors for degenerate doubly nonlinear equations. Mathematical Methods in the Applied Sciences, 2009, 32, 1638-1668.	1.2	21
43	Finite-dimensionality of attractors for degenerate equations of elliptic–parabolic type. Nonlinearity, 2007, 20, 1773-1797.	0.6	20
44	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.	0.8	19
45	Inertial manifolds for the 3D Cahn-Hilliard equations with periodic boundary conditions. Communications on Pure and Applied Analysis, 2015, 14, 2069-2094.	0.4	18
46	The trajectory attractor of a non-linear elliptic system in a cylindrical domain. Sbornik Mathematics, 1996, 187, 1755-1789.	0.2	17
47	Inertial manifolds for 1D reaction-diffusion-advection systems. Part â…: Dirichlet and Neumann boundary conditions. Communications on Pure and Applied Analysis, 2017, 16, 2357-2376.	0.4	16
48	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.	0.5	16
49	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.	0.8	15
50	Smooth attractors for the quintic wave equations with fractional damping. Asymptotic Analysis, 2014, 87, 191-221.	0.2	15
51	Doubly nonlinear Cahn-Hilliard-Gurtin equations. Hokkaido Mathematical Journal, 2009, 38, .	0.2	15
52	Spatial and Dynamical Chaos Generated by Reaction–Diffusion Systems in Unbounded Domains. Journal of Dynamics and Differential Equations, 2006, 19, 1-74.	1.0	14
53	Counterexamples to regularity of Mañé projections in the theory of attractors. Russian Mathematical Surveys, 2013, 68, 199-226.	0.2	14
54	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.	1.0	13

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55	A Gronwall-type lemma with parameter and dissipative estimates for PDEs. Nonlinear Analysis: Theory, Methods & Applications, 2009, 70, 2337-2343.	0.6	13
56	Exponential attractors for random dynamical systems and applications. Stochastics and Partial Differential Equations: Analysis and Computations, 2013, 1, 241-281.	0.5	13
57	Regular attractors and nonautonomous perturbations of them. Sbornik Mathematics, 2013, 204, 1-42.	0.2	13
58	An attractor of a nonlinear system of reaction-diffusion equations in $\mathbb{R}^n$ and estimates of its µ-entropyand estimates of its µ-entropy. Mathematical Notes, 1999, 65, 790-793.	0.1	12
59	Regular attractor for a non-linear elliptic system in a cylindrical domain. Sbornik Mathematics, 1999, 190, 803-834.	0.2	11
60	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.	1.0	10
61	Weak Spatially Nondecaying Solutions of 3D Navier–Stokes Equations in Cylindrical Domains. , 2008, , 255-327.		10
62	One-Dimensional Interpolation Inequalities, Carlson–Landau Inequalities, and Magnetic Schrödinger Operators. International Mathematics Research Notices, 2016, 2016, 1190-1222.	0.5	10
63	Sharp dimension estimates of the attractor of the damped 2D Euler–Bardina equations. , 2021, , 209-229.		10
64	Inertial manifolds for 1D reaction-diffusion-advection systems. Part …¡: periodic boundary conditions. Communications on Pure and Applied Analysis, 2018, 17, 285-317.	0.4	10
65	Upper bounds for the attractor dimension of damped Navier-Stokes equations in $\mathbb R^2$. Discrete and Continuous Dynamical Systems, 2015, 36, 2085-2102.	0.5	10
66	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.	0.8	9
67	Analytical proof of space-time chaos in Ginzburg-Landau equations. Discrete and Continuous Dynamical Systems, 2010, 28, 1713-1751.	0.5	9
68	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.	0.5	9
69	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.	1.7	9
70	Large dispersion, averaging and attractors: three 1D paradigms. Nonlinearity, 2018, 31, R317-R350.	0.6	9
71	Asymptotic uniform boundedness of energy solutions to the Penrose-Fife model. Journal of Evolution Equations, 2012, 12, 863-890.	0.6	8
72	Infinite-energy solutions for the Navier-Stokes equations in a strip revisited. Communications on Pure and Applied Analysis, 2014, 13, 1361-1393.	0.4	8

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73	Infinite Energy Solutions for Dissipative Euler Equations in $\${\mathbb{R}^2}\$$ R 2. Journal of Mathematical Fluid Mechanics, 2015, 17, 513-532.	0.4	8
74	Finite dimensionality of the attractor for the hyperbolic Cahnâ€"Hilliardâ€"Oono equation in. Mathematical Methods in the Applied Sciences, 2016, 39, 1254-1267.	1.2	8
75	Sharp upper and lower bounds of the attractor dimension for 3D damped Eulerâ€"Bardina equations. Physica D: Nonlinear Phenomena, 2022, 432, 133156.	1.3	8
76	A trajectory attractor of a nonlinear elliptic system in an unbounded domain. Mathematical Notes, 1996, 63, 120-123.	0.1	7
77	Finite-dimensional global and exponential attractors for the reactionâ€"diffusion problem with an obstacle potential. Nonlinearity, 2009, 22, 2733-2760.	0.6	7
78	Green's function asymptotics and sharp interpolation inequalities. Russian Mathematical Surveys, 2014, 69, 209-260.	0.2	7
79	Infiniteâ€energy solutions for the Cahnâ€"Hilliard equation in cylindrical domains. Mathematical Methods in the Applied Sciences, 2014, 37, 1884-1908.	1.2	7
80	Uniform attractors for measure-driven quintic wave equations. Russian Mathematical Surveys, 2020, 75, 253-320.	0.2	7
81	Inertial manifolds for the hyperbolic relaxation of semilinear parabolic equations. Discrete and Continuous Dynamical Systems - Series B, 2019, 24, 1115-1142.	0.5	7
82	The attractor of a quasilinear hyperbolic equation with dissipation in â„n : Dimension andÎ¼-entropy. Mathematical Notes, 2000, 67, 248-251.	0.1	6
83	Liebâ€"Thirring constant on the sphere and on the torus. Journal of Functional Analysis, 2020, 279, 108784.	0.7	6
84	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.	0.1	6
85	The long-time behaviour of the thermoconvective flow in a porous medium. Mathematical Methods in the Applied Sciences, 2004, 27, 907-930.	1.2	5
86	A note on a strongly damped wave equation with fast growing nonlinearities. Journal of Mathematical Physics, 2015, 56, 011501.	0.5	5
87	Kwak Transform and Inertial Manifolds revisited. Journal of Dynamics and Differential Equations, 2022, 34, 2975-2995.	1.0	5
88	Inertial Manifolds via Spatial Averaging Revisited. SIAM Journal on Mathematical Analysis, 2022, 54, 268-305.	0.9	5
89	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.	0.4	4
90	Global solvability and blow up for the convective Cahn-Hilliard equations with concave potentials. Journal of Mathematical Physics, 2013, 54, 041502.	0.5	4

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91	Hyperbolic relaxation of the 2D Navier–Stokes equations in a bounded domain. Physica D: Nonlinear Phenomena, 2018, 376-377, 171-179.	1.3	4
92	Asymptotic Regularity and Attractors for Slightly Compressible Brinkman–Forchheimer Equations. Applied Mathematics and Optimization, 2021, 84, 3137-3171.	0.8	4
93	Strong trajectory and global <inline-formula><tex-math id= M1 >egin{document} $\mathbf{W^{1,p}}$ end{document}</tex-math></inline-formula>-attractors for the damped-driven Euler system in <inline-formula><tex-math id="M2">egin{document} $\mathbb R^2$ end{document}</tex-math></inline-formula>. Discrete and Continuous Dynamical Systems - Series B, 2017, 22, 1835-1855.	0.5	4
94	Classification of positive solutions of semilinear elliptic equations. Comptes Rendus Mathematique, 2004, 338, 7-11.	0.1	3
95	On the Lyapunov dimension of cascade systems. Communications on Pure and Applied Analysis, 2008, 7, 971-985.	0.4	3
96	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.	1.1	3
97	On a singular heat equation with dynamic boundary conditions. Asymptotic Analysis, 2016, 97, 27-59.	0.2	3
98	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.	1.3	3
99	Validity of the hyperbolic Whitham modulation equations in Sobolev spaces. Journal of Differential Equations, 2021, 274, 971-995.	1.1	3
100	Reaction-diffusion systems with supercritical nonlinearities revisited. Mathematische Annalen, 2022, 384, 1-45.	0.7	3
101	The mathieu-hill operator equation with dissipation and estimates of its instability index. Mathematical Notes, 1997, 61, 451-464.	0.1	2
102	Boundedness of the solutions of a nonlinear elliptic system in a cylindrical domain. Mathematical Notes, 1997, 61, 365-369.	0.1	2
103	Homoclinic bifurcations and dimension of attractors for damped nonlinear hyperbolic equations. Nonlinearity, 2003, 16, 2163-2198.	0.6	2
104	Computing Interacting Multi-fronts in One Dimensional Real Ginzburg Landau Equations. Journal of Scientific Computing, 2015, 63, 799-819.	1.1	2
105	Preventing Blow up by Convective Terms in Dissipative PDE's. Journal of Mathematical Fluid Mechanics, 2016, 18, 463-479.	0.4	2
106	Infinite energy solutions for weakly damped quintic wave equations in $\mathbb{R}^3$. Transactions of the American Mathematical Society, 2021, 374, 3093-3129.	0.5	2
107	Applications of the Lieb–Thirring and other bounds for orthonormal systems in mathematical hydrodynamics. , 2022, , 583-608.		2
108	Almost-periodic solutions of a class of linear hyperbolic equations. Mathematical Notes, 1994, 56, 865-868.	0.1	1

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109	Attractors for the nonlinear elliptic boundary value problems and their parabolic singular limit. Communications on Pure and Applied Analysis, 2014, 13, 2059-2093.	0.4	1
110	Regular attractors of autonomous and nonautonomous dynamical systems. Doklady Mathematics, 2014, 89, 92-97.	0.1	1
111	On the Lieb-Thirring Constant on the Torus. Mathematical Notes, 2019, 106, 1019-1023.	0.1	1
112	Sharp Dimension Estimates for the Attractors of the Regularized Damped Euler System. Doklady Mathematics, 2021, 104, 169-172.	0.1	1
113	Energy growth for a nonlinear oscillator coupled to a monochromatic wave. Regular and Chaotic Dynamics, 2014, 19, 513-522.	0.3	0
114	Sharp interpolation inequalities for discrete operators and applications. Bulletin of Mathematical Sciences, 2015, 5, 19-57.	0.5	0
115	Sharp interpolation inequalities for discrete operators. Doklady Mathematics, 2015, 91, 215-219.	0.1	0
116	Interaction of spatial and temporal cavity solitons in mode-locked lasers and passive cavities. , 2016, , .		0
117	Cesaro summation by spheres of lattice sums and Madelung constants. Communications on Pure and Applied Analysis, 2021, 20, 4195.	0.4	0
118	Trajectory attractors for 3D damped Euler equations and their approximation. Discrete and Continuous Dynamical Systems - Series S, 2022, , .	0.6	0