

Alexander Mielke

List of Publications by Year in descending order

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papers

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50276

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197
docs citations

197
times ranked

1508
citing authors

#	ARTICLE	IF	CITATIONS
1	Non-convex potentials and microstructures in finite-strain plasticity. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 299-317.	2.1	296
2	A Variational Formulation of Rate-Independent Phase Transformations Using an Extremum Principle. Archive for Rational Mechanics and Analysis, 2002, 162, 137-177.	2.4	242
3	Evolution of Rate-Independent Systems. Handbook of Differential Equations: Evolutionary Equations, 2005, 2, 461-559.	0.9	222
4	On rate-independent hysteresis models. Nonlinear Differential Equations and Applications, 2004, 11, 151.	0.8	183
5	Reduction of quasilinear elliptic equations in cylindrical domains with applications. Mathematical Methods in the Applied Sciences, 1988, 10, 51-66.	2.3	172
6	A gradient structure for reaction-diffusion systems and for energy-drift-diffusion systems. Nonlinearity, 2011, 24, 1329-1346.	1.4	168
7	Rate-Independent Systems. Applied Mathematical Sciences (Switzerland), 2015, , .	0.8	159
8	The validity of modulation equations for extended systems with cubic nonlinearities. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1992, 122, 85-91.	1.2	156
9	Attractors for modulation equations on unbounded domains-existence and comparison. Nonlinearity, 1995, 8, 743-768.	1.4	152
10	Γ -limits and relaxations for rate-independent evolutionary problems. Calculus of Variations and Partial Differential Equations, 2008, 31, 387-416.	1.7	149
11	Existence results for energetic models for rate-independent systems. Calculus of Variations and Partial Differential Equations, 2005, 22, 73-99.	1.7	146
12	Energetic formulation of multiplicative elasto-plasticity using dissipation distances. Continuum Mechanics and Thermodynamics, 2003, 15, 351-382.	2.2	137
13	Optimal Entropy-Transport problems and a new Hellinger-Kantorovich distance between positive measures. Inventiones Mathematicae, 2018, 211, 969-1117.	2.5	105
14	On the Relation between Gradient Flows and the Large-Deviation Principle, with Applications to Markov Chains and Diffusion. Potential Analysis, 2014, 41, 1293-1327.	0.9	103
15	RATE-INDEPENDENT DAMAGE PROCESSES IN NONLINEAR ELASTICITY. Mathematical Models and Methods in Applied Sciences, 2006, 16, 177-209.	3.3	98
16	A reduction principle for nonautonomous systems in infinite-dimensional spaces. Journal of Differential Equations, 1986, 65, 68-88.	2.2	95
17	ON THE INVISCID LIMIT OF A MODEL FOR CRACK PROPAGATION. Mathematical Models and Methods in Applied Sciences, 2008, 18, 1529-1569.	3.3	94
18	Geodesic convexity of the relative entropy in reversible Markov chains. Calculus of Variations and Partial Differential Equations, 2013, 48, 1-31.	1.7	93

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19	The complex Ginzburg - Landau equation on large and unbounded domains: sharper bounds and attractors. <i>Nonlinearity</i> , 1997, 10, 199-222.	1.4	89
20	A Rate-Independent Model for Inelastic Behavior of Shape-Memory Alloys. <i>Multiscale Modeling and Simulation</i> , 2003, 1, 571-597.	1.6	88
21	Spatially complex equilibria of buckled rods. <i>Archive for Rational Mechanics and Analysis</i> , 1988, 101, 319-348.	2.4	86
22	Modelling of Microstructure and its Evolution in Shape-Memory-Alloy Single-Crystals, in Particular in CuAlNi. <i>Meccanica</i> , 2005, 40, 389-418.	2.0	86
23	Existence results for a class of rate-independent material models with nonconvex elastic energies. <i>Journal Fur Die Reine Und Angewandte Mathematik</i> , 2006, 2006, .	0.9	86
24	Formulation of thermoelastic dissipative material behavior using GENERIC. <i>Continuum Mechanics and Thermodynamics</i> , 2011, 23, 233-256.	2.2	84
25	BV solutions and viscosity approximations of rate-independent systems. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2012, 18, 36-80.	1.3	83
26	A proof of the Benjamin-Feir instability. <i>Archive for Rational Mechanics and Analysis</i> , 1995, 133, 145-198.	2.4	82
27	Global Existence for Rate-Independent Gradient Plasticity at Finite Strain. <i>Journal of Nonlinear Science</i> , 2009, 19, 221-248.	2.1	76
28	Damage of nonlinearly elastic materials at small strain " Existence and regularity results ". <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2010, 90, 88-112.	1.6	70
29	The Ginzburg-Landau Equation in Its Role as a Modulation Equation* *The research was partially supported by DFG-SPP "Dynamische Systeme" under Mi 459/2 and by Volkswagen-Stiftung under 1/71016.. <i>Handbook of Dynamical Systems</i> , 2002, 2, 759-834.	0.6	69
30	Instability and Stability of Rolls in the Swift-Hohenberg Equation. <i>Communications in Mathematical Physics</i> , 1997, 189, 829-853.	2.2	68
31	Two-Scale Homogenization for Evolutionary Variational Inequalities via the Energetic Formulation. <i>SIAM Journal on Mathematical Analysis</i> , 2007, 39, 642-668.	1.9	68
32	Modeling solutions with jumps for rate-independent systems on metric spaces. <i>Discrete and Continuous Dynamical Systems</i> , 2009, 25, 585-615.	0.9	68
33	Optimal Transport in Competition with Reaction: The Hellinger-Kantorovich Distance and Geodesic Curves. <i>SIAM Journal on Mathematical Analysis</i> , 2016, 48, 2869-2911.	1.9	63
34	A class of minimum principles for characterizing the trajectories and the relaxation of dissipative systems. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2008, 14, 494-516.	1.3	62
35	Saint-Venant's problem and semi-inverse solutions in nonlinear elasticity. <i>Archive for Rational Mechanics and Analysis</i> , 1988, 102, 205-229.	2.4	61
36	Lower semicontinuity and existence of minimizers in incremental finite-strain elastoplasticity. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2006, 86, 233-250.	1.6	58

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37	Macroscopic Behavior of Microscopic Oscillations in Harmonic Lattices via Wigner-Husimi Transforms. <i>Archive for Rational Mechanics and Analysis</i> , 2006, 181, 401-448.	2.4	58
38	A spatial dynamics approach to three-dimensional gravity-capillary steady water waves. <i>Proceedings of the Royal Society of Edinburgh Section A: Mathematics</i> , 2001, 131, 83-136.	1.2	57
39	A new identity for the surface impedance matrix and its application to the determination of surface-wave speeds. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2002, 458, 2523-2543.	2.1	57
40	Nonsmooth analysis of doubly nonlinear evolution equations. <i>Calculus of Variations and Partial Differential Equations</i> , 2013, 46, 253-310.	1.7	57
41	A Rate-Independent Approach to the Delamination Problem. <i>Mathematics and Mechanics of Solids</i> , 2006, 11, 423-447.	2.4	56
42	Normal hyperbolicity of center manifolds and Saint-Venant's principle. <i>Archive for Rational Mechanics and Analysis</i> , 1990, 110, 353-372.	2.4	55
43	Existence of Minimizers in Incremental Elasto-Plasticity with Finite Strains. <i>SIAM Journal on Mathematical Analysis</i> , 2004, 36, 384-404.	1.9	55
44	EXISTENCE AND UNIQUENESS RESULTS FOR A CLASS OF RATE-INDEPENDENT HYSTERESIS PROBLEMS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2007, 17, 81-123.	3.3	53
45	Finite Elastoplasticity Lie Groups and Geodesics on $SL(d)$. , 2002, , 61-90.		52
46	Gradient structures and geodesic convexity for reaction-diffusion systems. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20120346.	3.4	51
47	The nonlinear Schrödinger equation as a macroscopic limit for an oscillator chain with cubic nonlinearities. <i>Nonlinearity</i> , 2004, 17, 551-565.	1.4	49
48	A RATE-INDEPENDENT MODEL FOR THE ISOTHERMAL QUASI-STATIC EVOLUTION OF SHAPE-MEMORY MATERIALS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2008, 18, 125-164.	3.3	48
49	On Evolutionary Γ -Convergence for Gradient Systems. <i>Lecture Notes in Applied Mathematics and Mechanics</i> , 2016, , 187-249.	1.1	47
50	Essential Manifolds for an Elliptic Problem in an Infinite Strip. <i>Journal of Differential Equations</i> , 1994, 110, 322-355.	2.2	46
51	Deriving new evolution equations for microstructures via relaxation of variational incremental problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 5095-5127.	6.6	46
52	From Discrete Visco-Elasticity to Continuum Rate-Independent Plasticity: Rigorous Results. <i>Archive for Rational Mechanics and Analysis</i> , 2012, 203, 577-619.	2.4	44
53	Crack growth in polyconvex materials. <i>Physica D: Nonlinear Phenomena</i> , 2010, 239, 1470-1484.	2.8	41
54	Balanced Viscosity (BV) solutions to infinite-dimensional rate-independent systems. <i>Journal of the European Mathematical Society</i> , 2016, 18, 2107-2165.	1.4	41

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55	A gradient structure for systems coupling reaction–diffusion effects in bulk and interfaces. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2013, 64, 29-52.	1.4	40
56	Differential, Energetic, and Metric Formulations for Rate-Independent Processes. <i>Lecture Notes in Mathematics</i> , 2011, , 87-170.	0.2	40
57	Quasiconvexity at the Boundary and a Simple Variational Formulation of Agmon's Condition. , 1998, 51, 23-41.		39
58	Complete damage in elastic and viscoelastic media and its energetics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 1242-1253.	6.6	39
59	A complete-damage problem at small strains. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2009, 60, 205-236.	1.4	37
60	Passing to the limit in a Wasserstein gradient flow: from diffusion to reaction. <i>Calculus of Variations and Partial Differential Equations</i> , 2012, 44, 419-454.	1.7	37
61	A Generalization of Onsager’s Reciprocity Relations to Gradient Flows with Nonlinear Mobility. <i>Journal of Non-Equilibrium Thermodynamics</i> , 2016, 41, 141-149.	4.2	37
62	Über maximale L^p -Regularität für Differentialgleichungen in Banach- und Hilbert-Räumen. <i>Mathematische Annalen</i> , 1987, 277, 121-133.	1.4	36
63	Numerical approaches to rate-independent processes and applications in inelasticity. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2009, 43, 399-428.	1.9	36
64	Quasi-Static Small-Strain Plasticity in the Limit of Vanishing Hardening and Its Numerical Approximation. <i>SIAM Journal on Numerical Analysis</i> , 2012, 50, 951-976.	2.3	36
65	Micro–macro transition in the atomic chain via Whitham's modulation equation. <i>Nonlinearity</i> , 2006, 19, 471-500.	1.4	33
66	Energy release rate for cracks in finite-strain elasticity. <i>Mathematical Methods in the Applied Sciences</i> , 2008, 31, 501-528.	2.3	33
67	Thermomechanical modeling of energy-reaction-diffusion systems, including bulk-interface interactions. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2013, 6, 479-499.	1.1	33
68	Rate-independent elastoplasticity at finite strains and its numerical approximation. <i>Mathematical Models and Methods in Applied Sciences</i> , 2016, 26, 2203-2236.	3.3	32
69	From Damage to Delamination in Nonlinearly Elastic Materials at Small Strains. <i>Journal of Elasticity</i> , 2012, 109, 235-273.	1.9	31
70	An Entropic Gradient Structure for Lindblad Equations and Couplings of Quantum Systems to Macroscopic Models. <i>Journal of Statistical Physics</i> , 2017, 167, 205-233.	1.2	31
71	Bounds for the solutions of the complex Ginzburg-Landau equation in terms of the dispersion parameters. <i>Physica D: Nonlinear Phenomena</i> , 1998, 117, 106-116.	2.8	30
72	On the energetic stability of solitary water waves. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2002, 360, 2337-2358.	3.4	30

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73	A Mathematical Framework for Generalized Standard Materials in the Rate-Independent Case. , 2006, , 399-428.		30
74	On Uniform Decay of the Entropy for Reaction–Diffusion Systems. Journal of Dynamics and Differential Equations, 2015, 27, 897-928.	1.9	29
75	Errata to “The free energy of mixing for n-variant martensitic phase transformations using quasi-convex analysis”, Journal of the Mechanics and Physics of Solids, 2003, 51, 763.	4.8	28
76	Padé approximant for refractive index and nonlocal envelope equations. Optics Communications, 2010, 283, 480-485.	2.1	28
77	Weighted energy-dissipation functionals for gradient flows. ESAIM - Control, Optimisation and Calculus of Variations, 2011, 17, 52-85.	1.3	28
78	Linearized plasticity is the evolutionary Γ -limit of finite plasticity. Journal of the European Mathematical Society, 2013, 15, 923-948.	1.4	27
79	Non-equilibrium Thermodynamical Principles for Chemical Reactions with Mass-Action Kinetics. SIAM Journal on Applied Mathematics, 2017, 77, 1562-1585.	1.8	27
80	An energetic material model for time-dependent ferroelectric behaviour: existence and uniqueness. Mathematical Methods in the Applied Sciences, 2006, 29, 1393-1410.	2.3	26
81	Error Estimates for Space-Time Discretizations of a Rate-Independent Variational Inequality. SIAM Journal on Numerical Analysis, 2010, 48, 1625-1646.	2.3	25
82	Variational Convergence of Gradient Flows and Rate-Independent Evolutions in Metric Spaces. Milan Journal of Mathematics, 2012, 80, 381-410.	1.1	25
83	A discrete variational principle for rate-independent evolution. Advances in Calculus of Variations, 2008, 1, .	1.2	24
84	Dispersive evolution of pulses in oscillator chains with general interaction potentials. Discrete and Continuous Dynamical Systems - Series B, 2006, 6, 493-523.	0.9	24
85	Reduction of PDEs on domains with several unbounded directions: A first step towards modulation equations. Zeitschrift Fur Angewandte Mathematik Und Physik, 1992, 43, 449-470.	1.4	23
86	On Existence and Approximation for a 3D Model of Thermally Induced Phase Transformations in Shape-Memory Alloys. SIAM Journal on Mathematical Analysis, 2009, 41, 1388-1414.	1.9	23
87	Comparison of Inertial Manifolds and Application to Modulated Systems. Mathematische Nachrichten, 2000, 214, 53-69.	0.8	22
88	Multi-pulse evolution and space-time chaos in dissipative systems. Memoirs of the American Mathematical Society, 2009, 198, 0-0.	0.9	22
89	Bifurcation of Homoclinic Orbits to a Saddle-Focus in Reversible Systems with $SO(2)$ -Symmetry. Journal of Differential Equations, 1999, 159, 370-402.	2.2	20
90	Infinite-dimensional trajectory attractors of elliptic boundary-value problems in cylindrical domains. Russian Mathematical Surveys, 2002, 57, 753-784.	0.6	20

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91	AN EVOLUTIONARY ELASTOPLASTIC PLATE MODEL DERIVED VIA $\hat{\Gamma}$ -CONVERGENCE. <i>Mathematical Models and Methods in Applied Sciences</i> , 2011, 21, 1961-1986.	3.3	20
92	Thermoviscoelasticity in Kelvin-Voigt Rheology at Large Strains. <i>Archive for Rational Mechanics and Analysis</i> , 2020, 238, 1-45.	2.4	20
93	Two-scale homogenization of nonlinear reaction-diffusion systems with slow diffusion. <i>Networks and Heterogeneous Media</i> , 2014, 9, 353-382.	1.1	20
94	On Saint-Venant's problem for an elastic strip. <i>Proceedings of the Royal Society of Edinburgh Section A: Mathematics</i> , 1988, 110, 161-181.	1.2	19
95	Mathematical analysis of sideband instabilities with application to rayleigh-Bénard convection. <i>Journal of Nonlinear Science</i> , 1997, 7, 57-99.	2.1	19
96	Diffusive Mixing of Stable States in the Ginzburg-Landau Equation. <i>Communications in Mathematical Physics</i> , 1998, 199, 71-97.	2.2	19
97	On the justification of plate theories in linear elasticity theory using exponential decay estimates. <i>Journal of Elasticity</i> , 1995, 38, 165-208.	1.9	18
98	A model for the evolution of laminates in finite-strain elastoplasticity. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2012, 92, 888-909.	1.6	18
99	Interaction of modulated pulses in the nonlinear Schrödinger equation with periodic potential. <i>Journal of Differential Equations</i> , 2008, 245, 939-963.	2.2	17
100	Emergence of rate-independent dissipation from viscous systems with wiggly energies. <i>Continuum Mechanics and Thermodynamics</i> , 2012, 24, 591-606.	2.2	17
101	HOMOGENIZATION OF ELASTIC WAVES IN FLUID-SATURATED POROUS MEDIA USING THE BIOT MODEL. <i>Mathematical Models and Methods in Applied Sciences</i> , 2013, 23, 873-916.	3.3	17
102	Global Existence Results for Viscoplasticity at Finite Strain. <i>Archive for Rational Mechanics and Analysis</i> , 2018, 227, 423-475.	2.4	17
103	An Approach to Nonlinear Viscoelasticity via Metric Gradient Flows. <i>SIAM Journal on Mathematical Analysis</i> , 2014, 46, 1317-1347.	1.9	16
104	Modeling of Chemical Reaction Systems with Detailed Balance Using Gradient Structures. <i>Journal of Statistical Physics</i> , 2020, 181, 2257-2303.	1.2	16
105	Dissipation distances in multiplicative elastoplasticity. <i>Lecture Notes in Applied and Computational Mechanics</i> , 2003, , 87-100.	2.2	16
106	Flow properties for Young-measure solutions of semilinear hyperbolic problems. <i>Proceedings of the Royal Society of Edinburgh Section A: Mathematics</i> , 1999, 129, 85-123.	1.2	15
107	Convergence Results for a Coarsening Model Using Global Linearization. <i>Journal of Nonlinear Science</i> , 2003, 13, 311-346.	2.1	15
108	Dynamical Properties of Spatially Non-Decaying 2D Navier-Stokes Flows with Kolmogorov Forcing in an Infinite Strip. <i>Journal of Mathematical Fluid Mechanics</i> , 2005, 7, S51-S67.	1.0	15

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109	Bifurcations of Poiseuille flow between parallel plates: Three-dimensional solutions with large spanwise wavelength. <i>Archive for Rational Mechanics and Analysis</i> , 1995, 129, 101-127.	2.4	14
110	Multi-pulse solutions to the Navier-Stokes problem between parallel plates. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2001, 52, 79-100.	1.4	14
111	Dispersive stability of infinite-dimensional Hamiltonian systems on lattices. <i>Applicable Analysis</i> , 2010, 89, 1493-1512.	1.3	14
112	Spectrum and amplitude equations for scalar delay-differential equations with large delay. <i>Discrete and Continuous Dynamical Systems</i> , 2015, 35, 537-553.	0.9	14
113	Coexistence of Hamiltonian-Like and Dissipative Dynamics in Rings of Coupled Phase Oscillators with Skew-Symmetric Coupling. <i>SIAM Journal on Applied Dynamical Systems</i> , 2018, 17, 2076-2105.	1.6	14
114	Coarse-graining via EDP-convergence for linear fast-slow reaction systems. <i>Mathematical Models and Methods in Applied Sciences</i> , 2020, 30, 1765-1807.	3.3	14
115	Exploring families of energy-dissipation landscapes via tilting: three types of EDP convergence. <i>Continuum Mechanics and Thermodynamics</i> , 2021, 33, 611-637.	2.2	14
116	A metric approach to a class of doubly nonlinear evolution equations and applications. <i>Annali Della Scuola Normale Superiore Di Pisa Classe Di Scienze</i> , 2009, , 97-169.	0.2	14
117	Complete-damage evolution based on energies and stresses. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2011, 4, 423-439.	1.1	14
118	Decay to Equilibrium for Energy-Reaction-Diffusion Systems. <i>SIAM Journal on Mathematical Analysis</i> , 2018, 50, 1037-1075.	1.9	13
119	A gradient system with a wiggly energy and relaxed EDP-convergence. <i>ESAIM - Control, Optimisation and Calculus of Variations</i> , 2019, 25, 68.	1.3	13
120	Influence of Hardening and Inhomogeneity on Internal Loops in Pseudoelasticity. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2000, 80, 291-306.	1.6	11
121	Geometric properties of cones with applications on the Hellinger-Kantorovich space, and a new distance on the space of probability measures. <i>Journal of Functional Analysis</i> , 2019, 276, 3529-3576.	1.4	11
122	Uniqueness of the Surface-Wave Speed: A Proof That Is Independent of the Stroh Formalism. <i>Mathematics and Mechanics of Solids</i> , 2004, 9, 5-15.	2.4	11
123	Weak-convergence methods for Hamiltonian multiscale problems. <i>Discrete and Continuous Dynamical Systems</i> , 2008, 20, 53-79.	0.9	11
124	On microscopic origins of generalized gradient structures. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2017, 10, 1-35.	1.1	11
125	Continuum Descriptions for the Dynamics in Discrete Lattices: Derivation and Justification. , 2006, , 435-466.		10
126	Infinite-Dimensional Hyperbolic Sets and Spatio-Temporal Chaos in Reaction Diffusion Systems in \mathbb{R}^n . <i>Journal of Dynamics and Differential Equations</i> , 2007, 19, 333-389.	1.9	10

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127	Convergence of solutions of kinetic variational inequalities in the rate-independent quasi-static limit. <i>Journal of Mathematical Analysis and Applications</i> , 2008, 348, 1012-1020.	1.0	10
128	Reverse Approximation of Energetic Solutions to Rate-Independent Processes. <i>Nonlinear Differential Equations and Applications</i> , 2009, 16, 17-40.	0.8	10
129	Deriving amplitude equations via evolutionary Γ -convergence. <i>Discrete and Continuous Dynamical Systems</i> , 2015, 35, 2679-2700.	0.9	10
130	On thermodynamically consistent models and gradient structures for thermoplasticity. <i>GAMM Mitteilungen</i> , 2011, 34, 51-58.	5.5	9
131	Generalized Prandtl–Ishlinskii operators arising from homogenization and dimension reduction. <i>Physica B: Condensed Matter</i> , 2012, 407, 1330-1335.	2.7	9
132	Global-in-time existence of weak solutions to Kolmogorov's two-equation model of turbulence. <i>Comptes Rendus Mathématique</i> , 2015, 353, 321-326.	0.3	9
133	Global existence for a nonlocal and nonlinear Fokker–Planck equation. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2015, 66, 293-315.	1.4	9
134	Stability and Diffusive Dynamics on Extended Domains. , 2001, , 563-583.		9
135	A model for temperature-induced phase transformations in finite-strain elasticity. <i>IMA Journal of Applied Mathematics</i> , 2007, 72, 644-658.	1.6	8
136	Convergence to Equilibrium in Energy-Reaction–Diffusion Systems Using Vector-Valued Functional Inequalities. <i>Journal of Nonlinear Science</i> , 2018, 28, 765-806.	2.1	8
137	Instability of Spatially ω Periodic States for a Family of Semilinear PDE's on an Infinite Strip. <i>Mathematische Nachrichten</i> , 1996, 179, 5-25.	0.8	7
138	Vortex pinning in super-conductivity as a rate-independent process. <i>European Journal of Applied Mathematics</i> , 2005, 16, 799-808.	2.9	7
139	Calculation of ultrashort pulse propagation based on rational approximations for medium dispersion. <i>Optical and Quantum Electronics</i> , 2012, 44, 241-246.	3.3	7
140	Balanced-Viscosity solutions for multi-rate systems. <i>Journal of Physics: Conference Series</i> , 2016, 727, 012010.	0.4	7
141	EDP-convergence for nonlinear fast–slow reaction systems with detailed balance*. <i>Nonlinearity</i> , 2021, 34, 5762-5798.	1.4	7
142	Dissipative Quantum Mechanics Using GENERIC. <i>Springer Proceedings in Mathematics and Statistics</i> , 2013, , 555-585.	0.2	7
143	Lagrangian and Hamiltonian two-scale reduction. <i>Journal of Mathematical Physics</i> , 2008, 49, .	1.1	6
144	Deriving Effective Models for Multiscale Systems via Evolutionary Γ -Convergence. <i>Understanding Complex Systems</i> , 2016, , 235-251.	0.6	6

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145	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.	0.2	6
146	Global existence and uniqueness for an optical fibre laser model. Nonlinearity, 1998, 11, 1489-1504.	1.4	5
147	Modeling and Analytical Study for Ferroelectric Materials. Mechanics of Advanced Materials and Structures, 2006, 13, 457-462.	2.6	5
148	Variational Approaches and Methods for Dissipative Material Models with Multiple Scales. Lecture Notes in Applied and Computational Mechanics, 2015, , 125-155.	2.2	5
149	Error Bounds for Space-Time Discretizations of a 3D Model for Shape-Memory Materials. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 185-197.	0.2	5
150	Existence results for a contact problem with varying friction coefficient and nonlinear forces. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2007, 87, 616-631.	1.6	4
151	High-frequency averaging in semi-classical Hartree-type equations. Asymptotic Analysis, 2010, 70, 87-100.	0.5	4
152	An existence result and evolutionary Γ -convergence for perturbed gradient systems. Journal of Evolution Equations, 2019, 19, 479-522.	1.1	4
153	Analytical and Numerical Methods for Finite-Strain Elastoplasticity. , 2006, , 491-529.		4
154	Leray-Hopf solutions to a viscoelastoplastic fluid model with nonsmooth stress-strain relation. Nonlinear Analysis: Real World Applications, 2022, 65, 103491.	1.7	4
155	Global Existence Analysis of Energy-Reaction-Diffusion Systems. SIAM Journal on Mathematical Analysis, 2022, 54, 220-267.	1.9	4
156	On the existence of global-in-time weak solutions and scaling laws for Kolmogorov's two-equation model for turbulence. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2022, 102, .	1.6	4
157	Existence and approximation for a 3D model of thermally-induced phase transformations in shape-memory alloys. Proceedings in Applied Mathematics and Mechanics, 2008, 8, 10395-10396.	0.2	3
158	Uniform Exponential Decay for Reaction-Diffusion Systems with Complex-Balanced Mass-Action Kinetics. Springer Proceedings in Mathematics and Statistics, 2017, , 149-171.	0.2	3
159	Averaging of time-periodic dissipation potentials in rate-independent processes. Discrete and Continuous Dynamical Systems - Series S, 2017, 10, 1303-1327.	1.1	3
160	Existence, numerical convergence and evolutionary relaxation for a rate-independent phase-transformation model. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150171.	3.4	2
161	On the Darwin-Howie-Whelan Equations for the Scattering of Fast Electrons Described by the Schrödinger Equation. SIAM Journal on Applied Mathematics, 2021, 81, 1552-1578.	1.8	2
162	A rigorous derivation and energetics of a wave equation with fractional damping. Journal of Evolution Equations, 2021, 21, 3079-3102.	1.1	2

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163	Nonlocal modulation equations for viscous-fluid flows in layers and spatially localized perturbations. Doklady Physics, 2001, 46, 869-872.	0.7	1
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