Gideon Simpson

List of Publications by Year
in descending order

39 papers	427 citations	687363 13 h-index	794594 19 g-index
43 all docs	43 docs citations	43 times ranked	324 citing authors

#	ARTICLE	IF	CITATIONS
1	A numerical method for a nonlocal diffusion equation with additive noise. Stochastics and Partial Differential Equations: Analysis and Computations, 2023, 11, 1433-1469.	0.9	1
2	Unbiased Trajectory-Based Estimation of Stationary Distributions and Splitting Probabilities. Biophysical Journal, 2021, 120, 177a.	0.5	0
3	Anharmonic free energy of lattice vibrations in fcc crystals from a mean-field bond. Physical Review B, 2020, 102, .	3.2	6
4	Sampling from rough energy landscapes. Communications in Mathematical Sciences, 2020, 18, 2271-2303.	1.0	1
5	Transient probability currents provide upper and lower bounds on non-equilibrium steady-state currents in the Smoluchowski picture. Journal of Chemical Physics, 2019, 151, 174108.	3.0	6
6	Detection of thin high contrast dielectrics from boundary measurements. Journal of Physics Communications, 2019, 3, 115016.	1.2	0
7	Exploring thematic structure and predicted functionality of 16S rRNA amplicon data. PLoS ONE, 2019, 14, e0219235.	2.5	17
8	Relative entropy minimization over Hilbert spaces via Robbins-Monro. AIMS Mathematics, 2019, 4, 359-383.	1.6	0
9	Exploring thematic structure and predicted functionality of 16S rRNA amplicon data. , 2019, 14, e0219235.		0
10	Exploring thematic structure and predicted functionality of 16S rRNA amplicon data. , 2019, 14, e0219235.		0
11	Exploring thematic structure and predicted functionality of 16S rRNA amplicon data. , 2019, 14, e0219235.		0
12	Exploring thematic structure and predicted functionality of 16S rRNA amplicon data. , 2019, 14, e0219235.		0
13	Existence theory for magma equations in dimension two and higher. Nonlinearity, 2018, 31, 4724-4745.	1.4	1
14	Local Structure of Singular Profiles for a Derivative Nonlinear Schrödinger Equation. SIAM Journal on Applied Dynamical Systems, 2017, 16, 514-545.	1.6	6
15	Spin-diffusions and diffusive molecular dynamics. Modelling and Simulation in Materials Science and Engineering, 2017, 25, 084003.	2.0	3
16	Conservative integrators for a toy model of weak turbulence. Journal of Computational and Applied Mathematics, 2017, 325, 113-124.	2.0	0
17	Analysis of estimators for Adaptive Kinetic Monte Carlo. Communications in Applied Mathematics and Computational Science, 2016, 11, 171-186.	1.8	5
18	A Theoretical Examination of Diffusive Molecular Dynamics. SIAM Journal on Applied Mathematics, 2016, 76, 2175-2195.	1.8	10

#	ARTICLE	IF	CITATIONS
19	Asymptotic Stability of High-dimensional Zakharov–Kuznetsov Solitons. Archive for Rational Mechanics and Analysis, 2016, 220, 639-710.	2.4	31
20	Petviashvilli's Method for the Dirichlet Problem. Journal of Scientific Computing, 2016, 66, 296-320.	2.3	9
21	Kullback--Leibler Approximation for Probability Measures on Infinite Dimensional Spaces. SIAM Journal on Mathematical Analysis, 2015, 47, 4091-4122.	1.9	30
22	Algorithms for Kullback--Leibler Approximation of Probability Measures in Infinite Dimensions. SIAM Journal of Scientific Computing, 2015, 37, A2733-A2757.	2.8	30
23	A generalized parallel replica dynamics. Journal of Computational Physics, 2015, 284, 595-616.	3.8	23
24	Local Existence Theory for Derivative Nonlinear Schrödinger Equations with Noninteger Power Nonlinearities. SIAM Journal on Mathematical Analysis, 2015, 47, 2241-2264.	1.9	12
25	Stability of Solitary Waves for a Generalized Derivative Nonlinear Schrödinger Equation. Journal of Nonlinear Science, 2013, 23, 557-583.	2.1	39
26	Focusing singularity in a derivative nonlinear Schrödinger equation. Physica D: Nonlinear Phenomena, 2013, 262, 48-58.	2.8	17
27	Behavior of a Model Dynamical System with Applications to Weak Turbulence. Experimental Mathematics, 2013, 22, 250-264.	0.7	7
28	Numerical analysis of parallel replica dynamics. ESAIM: Mathematical Modelling and Numerical Analysis, 2013, 47, 1287-1314.	1.9	8
29	Analytical and numerical results on the positivity of steady state solutions of a thin film equation. Discrete and Continuous Dynamical Systems - Series B, 2013, 18, 1305-1321.	0.9	2
30	Ill-posedness of degenerate dispersive equations. Nonlinearity, 2012, 25, 2655-2680.	1.4	17
31	Polychromatic Solitary Waves in a Periodic and Nonlinear Maxwell System. SIAM Journal on Applied Dynamical Systems, 2012, 11, 478-506.	1.6	13
32	Coherent Structures and Carrier Shocks in the Nonlinear Periodic Maxwell Equations. Multiscale Modeling and Simulation, 2011, 9, 955-990.	1.6	5
33	Solitary Wave Benchmarks in Magma Dynamics. Journal of Scientific Computing, 2011, 49, 268-290.	2.3	58
34	Spectral analysis for matrix Hamiltonian operators. Nonlinearity, 2011, 24, 389-429.	1.4	23
35	A System of ODEs for a Perturbation of a Minimal Mass Soliton. Journal of Nonlinear Science, 2010, 20, 425-461.	2.1	10
36	Asymptotic Stability of Ascending Solitary Magma Waves. SIAM Journal on Mathematical Analysis, 2008, 40, 1337-1391.	1.9	14

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37	On a Hamiltonian PDE arising in magma dynamics. Discrete and Continuous Dynamical Systems - Series B, 2008, 10, 903-924.	0.9	13
38	Well-posedness of a random coefficient damage mechanics model*. Applicable Analysis, 0, , 1-28.	1.3	0
39	Iterate averaging, the Kalman filter, and 3DVAR for linear inverse problems. Numerical Algorithms, 0, , .	1.9	0