

Andrew J Bernoff

List of Publications by Year in descending order

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55
papers

1,651
citations

304368

22
h-index

288905

40
g-index

78
all docs

78
docs citations

78
times ranked

1014
citing authors

#	ARTICLE	IF	CITATIONS
1	Axisymmetric Surface Diffusion: Dynamics and Stability of Self-Similar Pinchoff. <i>Journal of Statistical Physics</i> , 1998, 93, 725-776.	0.5	109
2	A Primer of Swarm Equilibria. <i>SIAM Journal on Applied Dynamical Systems</i> , 2011, 10, 212-250.	0.7	93
3	Stability of self-similar solutions for van der Waals driven thin film rupture. <i>Physics of Fluids</i> , 1999, 11, 2443-2445.	1.6	91
4	Transient anomalous diffusion in Poiseuille flow. <i>Journal of Fluid Mechanics</i> , 2001, 441, 399-411.	1.4	88
5	Locust Dynamics: Behavioral Phase Change and Swarming. <i>PLoS Computational Biology</i> , 2012, 8, e1002642.	1.5	83
6	Dynamics of three-dimensional thin film rupture. <i>Physica D: Nonlinear Phenomena</i> , 2000, 147, 155-176.	1.3	80
7	Self-similar Asymptotics for Linear and Nonlinear Diffusion Equations. <i>Studies in Applied Mathematics</i> , 1998, 100, 153-193.	1.1	79
8	Singularities in a modified Kuramoto-Sivashinsky equation describing interface motion for phase transition. <i>Physica D: Nonlinear Phenomena</i> , 1995, 85, 375-404.	1.3	75
9	Onset of superconductivity in decreasing fields for general domains. <i>Journal of Mathematical Physics</i> , 1998, 39, 1272-1284.	0.5	75
10	First Passage Statistics for the Capture of a Brownian Particle by a Structured Spherical Target with Multiple Surface Traps. <i>Multiscale Modeling and Simulation</i> , 2017, 15, 74-109.	0.6	72
11	Rapid relaxation of an axisymmetric vortex. <i>Physics of Fluids</i> , 1994, 6, 3717-3723.	1.6	66
12	Asymptotic Dynamics of Attractive-Repulsive Swarms. <i>SIAM Journal on Applied Dynamical Systems</i> , 2009, 8, 880-908.	0.7	60
13	An experimental study of micron-scale droplet aerosols produced via ultrasonic atomization. <i>Physics of Fluids</i> , 2004, 16, 2843-2851.	1.6	54
14	Quasi-steady monopole and tripole attractors for relaxing vortices. <i>Physics of Fluids</i> , 1997, 9, 2329-2338.	1.6	52
15	Nonlocal Aggregation Models: A Primer of Swarm Equilibria. <i>SIAM Review</i> , 2013, 55, 709-747.	4.2	51
16	Slowly varying fully nonlinear wavetrains in the Ginzburg-Landau equation. <i>Physica D: Nonlinear Phenomena</i> , 1988, 30, 363-381.	1.3	47
17	Spiral wave solutions for reaction-diffusion equations in a fast reaction/slow diffusion limit. <i>Physica D: Nonlinear Phenomena</i> , 1991, 53, 125-150.	1.3	36
18	Two-Dimensional Self-Assembly in Diblock Copolymers. <i>Physical Review Letters</i> , 2005, 95, 037801.	2.9	30

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19	Boundary Homogenization and Capture Time Distributions of Semipermeable Membranes with Periodic Patterns of Reactive Sites. <i>Multiscale Modeling and Simulation</i> , 2018, 16, 1411-1447.	0.6	30
20	Finite amplitude convection between stress-free boundaries; Ginzburg-Landau equations and modulation theory. <i>European Journal of Applied Mathematics</i> , 1994, 5, 267-282.	1.4	29
21	An intrinsic equation of interfacial motion for the solidification of a pure hypercooled melt. <i>Physica D: Nonlinear Phenomena</i> , 1995, 85, 348-374.	1.3	26
22	Numerical Approximation of Diffusive Capture Rates by Planar and Spherical Surfaces with Absorbing Pores. <i>SIAM Journal on Applied Mathematics</i> , 2018, 78, 266-290.	0.8	24
23	Advection of a passive scalar by a vortex couple in the small-diffusion limit. <i>Journal of Fluid Mechanics</i> , 1994, 270, 219-250.	1.4	21
24	Domain relaxation in Langmuir films. <i>Journal of Fluid Mechanics</i> , 2007, 571, 191-219.	1.4	21
25	Agent-based and continuous models of hopper bands for the Australian plague locust: How resource consumption mediates pulse formation and geometry. <i>PLoS Computational Biology</i> , 2020, 16, e1007820.	1.5	20
26	Stability and dynamics of self-similarity in evolution equations. <i>Journal of Engineering Mathematics</i> , 2010, 66, 11-31.	0.6	19
27	Biological Aggregation Driven by Social and Environmental Factors: A Nonlocal Model and Its Degenerate Cahn-Hilliard Approximation. <i>SIAM Journal on Applied Dynamical Systems</i> , 2016, 15, 1528-1562.	0.7	19
28	Determination of interphase line tension in Langmuir films. <i>Physical Review E</i> , 2007, 75, 061605.	0.8	18
29	Modulated, frequency-locked, and chaotic cross-waves. <i>Journal of Fluid Mechanics</i> , 1991, 225, 371-394.	1.4	17
30	Distortion and evolution of a localized vortex in an irrotational flow. <i>Physics of Fluids</i> , 1995, 7, 1015-1026.	1.6	17
31	Scroll Waves in the Presence of Slowly Varying Anisotropy with Application to the Heart. <i>Physical Review Letters</i> , 2001, 88, 028101.	2.9	16
32	Rates of Convergence to Self-Similar Solutions of Burgers' Equation. <i>Studies in Applied Mathematics</i> , 2003, 111, 29-40.	1.1	16
33	Energy-driven pattern formation in planar dipole-dipole systems in the presence of weak noise. <i>Physical Review E</i> , 2015, 91, 032919.	0.8	16
34	Stability of steady cross waves: Theory and experiment. <i>Physical Review A</i> , 1988, 37, 1663-1667.	1.0	15
35	Social Aggregation in Pea Aphids: Experiment and Random Walk Modeling. <i>PLoS ONE</i> , 2013, 8, e83343.	1.1	13
36	Viscous cross-waves: An analytical treatment. <i>Physics of Fluids A, Fluid Dynamics</i> , 1989, 1, 678-688.	1.6	12

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37	Hole dynamics in polymer Langmuir films. <i>Physics of Fluids</i> , 2006, 18, 062103.	1.6	12
38	Spanwise modal competition in cross-waves. <i>Physica D: Nonlinear Phenomena</i> , 1990, 43, 87-104.	1.3	11
39	Gasous Hole Closing in a Polymer Langmuir Monolayer. <i>Langmuir</i> , 2010, 26, 3232-3236.	1.6	11
40	Large-amplitude solutions to the Sivashinsky and Rileyâ€ˆDavis equations for directional solidification. <i>Physica D: Nonlinear Phenomena</i> , 1999, 127, 146-176.	1.3	7
41	The interaction of a point vortex with a wall-bounded vortex layer. <i>Journal of Fluid Mechanics</i> , 1997, 343, 169-195.	1.4	6
42	Continuum model of thin-film deposition and growth. <i>Physical Review B</i> , 1989, 39, 10560-10569.	1.1	4
43	The steady boundary layer due to a fast vortex. <i>Physics of Fluids</i> , 1996, 8, 156-162.	1.6	3
44	Interacting Vortex and Vortex Layer: How Length Scale Affects Entrainment and Ejection. <i>AIAA Journal</i> , 1998, 36, 924-928.	1.5	3
45	Interacting vortex and vortex layer - How length scale affects entrainment and ejection. <i>AIAA Journal</i> , 1998, 36, 924-928.	1.5	1
46	The interaction of a point vortex with a boundary layer leading to eruption. , 1996, , .		0
47	Putnam, Pizza & Problem Solving. <i>Math Horizons</i> , 2004, 12, 8-9.	0.0	0
48	Mathematics in the Mountains: The Park City Mathematics Institute. <i>Math Horizons</i> , 2008, 16, 20-21.	0.0	0
49	Determination of Inter-Phase Line Tension in DMPC/D-Cholesterol mixed Langmuir Films. <i>Biophysical Journal</i> , 2009, 96, 350a.	0.2	0
50	Combined Fluorescence and Brewster Angle Microscopy of Dmpc/D-Cholesterol Mixed Langmuir Films. <i>Biophysical Journal</i> , 2011, 100, 331a.	0.2	0
51	DYNAMICS AND STABILITY OF VAN-DER-WAALS-DRIVEN THIN FILM RUPTURE. , 2002, , 241-241.		0
52	Title is missing!. , 2020, 16, e1007820.		0
53	Title is missing!. , 2020, 16, e1007820.		0
54	Title is missing!. , 2020, 16, e1007820.		0

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55	Title is missing!. , 2020, 16, e1007820.		0