Alastair M Rucklidge

List of Publications by Year
in descending order

87	2,029	318942	299063
papers	citations	23 h-index	42 g-index

88	88	88	1489
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effects of homophily and heterophily on preferred-degree networks: mean-field analysis and overwhelming transition. Journal of Statistical Mechanics: Theory and Experiment, 2022, 2022, 013402.	0.9	2
2	Near-onset dynamics in natural doubly diffusive convection. Journal of Fluid Mechanics, 2022, 934, .	1.4	4
3	Stability of cycling behaviour near a heteroclinic network model of Rockâ€“Paperâ€“Scissorsâ€“Lizardâ€“Spock. Nonlinearity, 2022, 35, 1702-1733.	0.6	15
4	Patterns and Quasipatterns from the Superposition of Two Hexagonal Lattices. SIAM Journal on Applied Dynamical Systems, 2022, 21, 1119-1165.	0.7	2
5	Localized patterns in a generalized Swiftâ€“Hohenberg equation with a quartic marginal stability curve. IMA Journal of Applied Mathematics, 2021, 86, 944-983.	0.8	4
6	Density Distribution in Soft Matter Crystals and Quasicrystals. Physical Review Letters, 2021, 126, 218003.	2.9	4
7	Spatiotemporal stability of periodic travelling waves in a heteroclinic-cycle model. Nonlinearity, 2021, 34, 5576-5598.	0.6	2
8	How does homophily shape the topology of a dynamic network?. Physical Review E, 2021, 104, 044311.	0.8	5
9	Spatiotemporal chaos and quasipatterns in coupled reactionâ€“diffusion systems. Physica D: Nonlinear Phenomena, 2020, 409, 132475.	1.3	10
10	Deriving phase field crystal theory from dynamical density functional theory: Consequences of the approximations. Physical Review E, 2019, 100, 022140.	0.8	35
11	Which Wave Numbers Determine the Thermodynamic Stability of Soft Matter Quasicrystals?. Physical Review Letters, 2019, 123, 148004.	2.9	14
12	A trio of heteroclinic bifurcations arising from a model of spatially-extended Rockâ€“Paperâ€“Scissors. Nonlinearity, 2019, 32, 1375-1407.	0.6	16
13	Survival behavior in the cyclic Lotka-Volterra model with a randomly switching reaction rate. Physical Review E, 2018, 97, 022406.	0.8	15
14	Spatially localized quasicrystalline structures. New Journal of Physics, 2018, 20, 122002.	1.2	19
15	Localized Patterns in Periodically Forced Systems: II. Patterns with Nonzero Wavenumber. SIAM Journal on Applied Dynamical Systems, 2018, 17, 1478-1502.	0.7	3
16	Spirals and heteroclinic cycles in a spatially extended Rock-Paper-Scissors model of cyclic dominance. Europhysics Letters, 2017, 117, 48006.	0.7	23
17	Chaos in the Takensâ€“Bogdanov bifurcation with O(2) symmetry. Dynamical Systems, 2017, 32, 354-373.	0.2	3
18	The Influence of Mobility Rate on Spiral Waves in Spatial Rock-Paper-Scissors Games. Games, 2016, 7, 24.	0.4	32

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19	Three-Dimensional Icosahedral Phase Field Quasicrystal. Physical Review Letters, 2016, 117, 075501.	2.9	46
20	Can weakly nonlinear theory explain Faraday wave patterns near onset?. Journal of Fluid Mechanics, 2015, 777, 604-632.	1.4	20
21	Influence of Luddism on innovation diffusion. Physical Review E, 2015, 92, 012806.	0.8	18
22	Soft-core particles freezing to form a quasicrystal and a crystal-liquid phase. Physical Review E, 2015, 92, 012324.	0.8	45
23	Characterization of spiraling patterns in spatial rock-paper-scissors games. Physical Review E, 2014, 90, 032704.	0.8	52
24	Localized Patterns in Periodically Forced Systems. SIAM Journal on Applied Dynamical Systems, 2014, 13, 1311-1327.	0.7	15
25	Modeling diffusion of energy innovations on a heterogeneous social network and approaches to integration of realâ€world data. Complexity, 2014, 19, 83-94.	0.9	15
26	Cyclic dominance in evolutionary games: a review. Journal of the Royal Society Interface, 2014, 11, 20140735.	1.5	392
27	Multiparameter Models of Innovation Diffusion on Complex Networks. SIAM Journal on Applied Dynamical Systems, 2013, 12, 515-532.	0.7	41
28	Harnessing social networks for promoting adoption of energy technologies in the domestic sector. Energy Policy, 2013, 63, 833-844.	4.2	55
29	When does cyclic dominance lead to stable spiral waves?. Europhysics Letters, 2013, 102, 28012.	0.7	47
30	Quasicrystalline Order and a Crystal-Liquid State in a Soft-Core Fluid. Physical Review Letters, 2013, 111, 165501.	2.9	75
31	The Shearing Instability in Magnetoconvection. Geophysical Monograph Series, 2013, , 171-184.	0.1	5
32	Three-Wave Interactions and Spatiotemporal Chaos. Physical Review Letters, 2012, 108, 074504.	2.9	28
33	Formation of magnetic flux tubes in cylindrical wedge geometry. Geophysical and Astrophysical Fluid Dynamics, 2012, 106, 701-709.	0.4	1
34	Resonance Bifurcations of Robust Heteroclinic Networks. SIAM Journal on Applied Dynamical Systems, 2012, 11, 1360-1401.	0.7	11
35	NONLINEAR THREE-DIMENSIONAL MAGNETOCONVECTION AROUND MAGNETIC FLUX TUBES. Astrophysical Journal, 2011, 731, 108.	1.6	7
36	Skew-varicose instability in two-dimensional generalized Swift-Hohenberg equations. Physical Review E, 2011, 84, 036201.	0.8	2

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37	On the Existence of Quasipattern Solutions ofÂtheÂSwiftâ€“Hohenberg Equation. Journal of Nonlinear Science, 2010, 20, 361-394.	1.0	22
38	A mechanism for switching near a heteroclinic network. Dynamical Systems, 2010, 25, 323-349.	0.2	19
39	Design of Parametrically Forced Patterns and Quasipatterns. SIAM Journal on Applied Dynamical Systems, 2009, 8, 298-347.	0.7	35
40	Numerical simulations of rotating axisymmetric sunspots. Monthly Notices of the Royal Astronomical Society, 2008, 387, 1445-1462.	1.6	9
41	The effect of symmetry breaking on the dynamics near a structurally stable heteroclinic cycle between equilibria and a periodic orbit. Dynamical Systems, 2008, 23, 43-74.	0.2	18
42	Quasipatterns in parametrically forced systems. Physical Review E, 2007, 75, 055203.	0.8	12
43	Nonaxisymmetric Instabilities of Convection around Magnetic Flux Tubes. Astrophysical Journal, 2007, 662, L27-L30.	1.6	6
44	Numerical simulations of sunspots. Proceedings of the International Astronomical Union, 2006, 2, 507-509.	0.0	0
45	Converging and diverging convection around axisymmetric magnetic flux tubes. Monthly Notices of the Royal Astronomical Society, 2006, 369, 1611-1624.	1.6	11
46	Mean flow instabilities of two-dimensional convection in strong magnetic fields. Geophysical and Astrophysical Fluid Dynamics, 2006, 100, 121-137.	0.4	5
47	Boundary effects and the onset of Taylor vortices. Physica D: Nonlinear Phenomena, 2004, 191, 282-296.	1.3	13
48	Two-state intermittency near a symmetric interaction of saddle-node and Hopf bifurcations: a case study from dynamo theory. Physica D: Nonlinear Phenomena, 2004, 194, 30-48.	1.3	18
49	Cycling chaotic attractors in two models for dynamics with invariant subspaces. Chaos, 2004, 14, 571-582.	1.0	6
50	CONVERGENCE PROPERTIES OF FOURIER MODE REPRESENTATIONS OF QUASIPATTERNS. World Scientific Series on Nonlinear Science, Series B, 2004, , 124-139.	0.2	1
51	Convergence properties of the 8, 10 and 12 mode representations of quasipatterns. Physica D: Nonlinear Phenomena, 2003, 178, 62-82.	1.3	24
52	Phase resetting effects for robust cycles between chaotic sets. Chaos, 2003, 13, 973-981.	1.0	10
53	Pattern formation in large domains. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 2649-2664.	1.6	4
54	Reducible actions ofD4ÂT2: superlattice patterns and hidden symmetries. Nonlinearity, 2003, 16, 615-645.	0.6	8

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55	Cycling Attractors of Coupled Cell Systems and Dynamics with Symmetry. , 2003, , 5-23.		2
56	Infinities of stable periodic orbits in systems of coupled oscillators. Physical Review E, 2002, 66, 035201.	0.8	8
57	Complete Models of Axisymmetric Sunspots: Magnetoconvection with Coronal Heating. Astrophysical Journal, 2002, 577, 993-1005.	1.6	15
58	Global bifurcations in the Takensâ€“Bogdanov normal form with D4 symmetry near the O(2) limit. Physics Letters, Section A: General, Atomic and Solid State Physics, 2001, 284, 99-111.	0.9	15
59	Compressible magnetoconvection in three dimensions: pattern formation in a strongly stratified layer. Journal of Fluid Mechanics, 2000, 419, 283-323.	1.4	36
60	Development of structure in pores and sunspots: flows around axisymmetric magnetic flux tubes. Monthly Notices of the Royal Astronomical Society, 2000, 314, 793-806.	1.6	70
61	Spatial period-multiplying instabilities of hexagonal Faraday waves. Physica D: Nonlinear Phenomena, 2000, 146, 367-387.	1.3	26
62	Solar Magnetoconvection â€“ (Invited Review). Solar Physics, 2000, 192, 109-118.	1.0	36
63	Numerical Studies of Pattern Formation in Three-Dimensional Magnetoconvection. Progress of Theoretical Physics Supplement, 2000, 138, 674-683.	0.2	0
64	Solar Magnetoconvection (Invited Review). , 2000, , 109-118.		0
65	Destabilization by noise of transverse perturbations to heteroclinic cycles: a simple model and an example from dynamo theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 4205-4222.	1.0	13
66	Modelling photospheric magnetoconvection. Monthly Notices of the Royal Astronomical Society, 1998, 301, 593-608.	1.6	12
67	Cycling chaos: its creation, persistence and loss of stability in a model of nonlinear magnetoconvection. Physica D: Nonlinear Phenomena, 1998, 122, 134-154.	1.3	48
68	Modelling photospheric magnetoconvection. Monthly Notices of the Royal Astronomical Society, 1998, 301, 593-608.	1.6	16
69	Bifurcations of periodic orbits with spatio-temporal symmetries. Nonlinearity, 1998, 11, 1435-1455.	0.6	15
70	Symmetryâ€“breaking instabilities of convection in squares. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1997, 453, 107-118.	1.0	9
71	The threeâ€dimensional development of the shearing instability of convection. Physics of Fluids, 1996, 8, 1350-1352.	1.6	22
72	Analysis of the shearing instability in nonlinear convection and magnetoconvection. Nonlinearity, 1996, 9, 311-351.	0.6	44

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73	Comment on â€˜â€˜Bifurcations from periodic solution in a simplified model of twoâ€dimensional magnetoconvection,â€™â€™ by N. Bekki and T. Karakisawa [Phys. Plasmas 2, 2945 (1995)]. Physics of Plasmas, 1996, 3, 2475-2476.	0.7	6
74	The abrupt development of penumbrae in sunspots. Monthly Notices of the Royal Astronomical Society, 1995, 273, 491-498.	1.6	53
75	Shearing Instabilities in Magnetoconvection. , 1994, , 257-264.		3
76	Chaos in magnetoconvection. Nonlinearity, 1994, 7, 1565-1591.	0.6	31
77	Testing for Dynamo Action. , 1994, , 153-160.		1
78	Pulsating waves in nonlinear magnetoconvection. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 183, 69-75.	0.9	34
79	Chaos in a low-order model of magnetoconvection. Physica D: Nonlinear Phenomena, 1993, 62, 323-337.	1.3	40
80	Title is missing!. Earth-Science Reviews, 1993, 34, 69-70.	4.0	0
81	Travelling and standing waves in magnetoconvection. Proceedings of the Royal Society A, 1993, 441, 649-658.	1.0	20
82	Oscillations and secondary bifurcations in nonlinear magnetoconvection. Geophysical and Astrophysical Fluid Dynamics, 1993, 68, 133-150.	0.4	16
83	Chaos in models of double convection. Journal of Fluid Mechanics, 1992, 237, 209-229.	1.4	122
84	A microcanonical model for interface formation. Journal of Statistical Physics, 1988, 51, 299-307.	0.5	4
85	Numerical continuation of spiral waves in heteroclinic networks of cyclic dominance. IMA Journal of Applied Mathematics, 0, , .	0.8	1
86	Spatial localization beyond steady states in the neighbourhood of the Takensâ€“Bogdanov bifurcation. IMA Journal of Applied Mathematics, 0, , .	0.8	1
87	Snaking without subcriticality: grain boundaries as non-topological defects. IMA Journal of Applied Mathematics, 0, , .	0.8	4