Ian Stewart

List of Publications by Year in descending order

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155 papers	4,903 citations	279798 23 h-index	102487 66 g-index
184 all docs	184 docs citations	184 times ranked	1905 citing authors

#	Article	IF	Citations
1	Generalised Chain Conditions, Prime Ideals, and Classes of Locally Finite Lie Algebras. Algebra Colloquium, 2021, 28, 63-86.	0.2	0
2	Balanced Colorings and Bifurcations in Rivalry and Opinion Networks. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2021, 31, 2130019.	1.7	2
3	Symmetries of Quotient Networks for Doubly Periodic Patterns on the Hexagonal Lattice. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2030004.	1.7	2
4	Overdetermined constraints and rigid synchrony patterns for network equilibria. Portugaliae Mathematica, 2020, 77, 163-196.	0.4	2
5	Input-Output Networks, Singularity Theory, and Homeostasis. Studies in Systems, Decision and Control, 2020, , 31-65.	1.0	4
6	Finite Characterization of the Coarsest Balanced Coloring of a Network. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050212.	1.7	0
7	A generalized Noetherian condition for Lie algebras. Journal of Algebra and Its Applications, 2019, 18, 1950146.	0.4	0
8	Symmetric Networks with Geometric Constraints as Models of Visual Illusions. Symmetry, 2019, 11, 799.	2.2	5
9	Exotic Patterns of Synchrony in Planar Lattice Networks. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2019, 29, 1930003.	1.7	5
10	Symmetries of Quotient Networks for Doubly Periodic Patterns on the Square Lattice. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2019, 29, 1930026.	1.7	5
11	Homeostasis in a feed forward loop gene regulatory motif. Journal of Theoretical Biology, 2018, 445, 103-109.	1.7	17
12	Homeostasis with Multiple Inputs. SIAM Journal on Applied Dynamical Systems, 2018, 17, 1816-1832.	1.6	14
13	Why Do All Triangles Form a Triangle?. American Mathematical Monthly, 2017, 124, 70.	0.3	3
14	Special issue for Martin Golubitsky. Dynamical Systems, 2017, 32, 1-3.	0.4	2
15	Coordinate changes for network dynamics. Dynamical Systems, 2017, 32, 80-116.	0.4	6
16	Analysis of Homeostatic Mechanisms in Biochemical Networks. Bulletin of Mathematical Biology, 2017, 79, 2534-2557.	1.9	29
17	Homeostasis, singularities, and networks. Journal of Mathematical Biology, 2017, 74, 387-407.	1.9	31
18	Spontaneous Symmetry-Breaking in a Network Model for Quadruped Locomotion. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1730049.	1.7	20

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19	Rigid patterns of synchrony for equilibria and periodic cycles in network dynamics. Chaos, 2016, 26, 094803.	2.5	22
20	Symmetry methods in mathematical biology. Sao Paulo Journal of Mathematical Sciences, 2015, 9, 1-36.	0.4	9
21	Recent advances in symmetric and network dynamics. Chaos, 2015, 25, 097612.	2.5	34
22	Symmetry-Breaking in a Rate Model for a Biped Locomotion Central Pattern Generator. Symmetry, 2014, 6, 23-66.	2.2	12
23	Cooking the Classics. Mathematical Intelligencer, 2011, 33, 61-71.	0.2	1
24	Sources of uncertainty in deterministic dynamics: an informal overview. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 4705-4729.	3.4	12
25	AN OPTIMAL LIFTING THEOREM FOR COUPLED CELL NETWORKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2011, 21, 2481-2487.	1.7	4
26	PHASE OSCILLATORS WITH SINUSOIDAL COUPLING INTERPRETED IN TERMS OF PROJECTIVE GEOMETRY. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2011, 21, 1795-1804.	1.7	7
27	A NEW MECHANISM FOR INTERMITTENCY IN RINGS OF CELLS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 675-687.	1.7	0
28	EXAMPLES OF FORCED SYMMETRY-BREAKING TO HOMOCLINIC CYCLES IN THREE-DIMENSIONAL EUCLIDEAN-INVARIANT SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 83-107.	1.7	5
29	SYMMETRY AND SYNCHRONY IN COUPLED CELL NETWORKS 3. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 363-373.	1.7	7
30	Periodic dynamics of coupled cell networks II: cyclic symmetry. Dynamical Systems, 2008, 23, 17-41.	0.4	19
31	ELIMINATION OF MULTIPLE ARROWS AND SELF-CONNECTIONS IN COUPLED CELL NETWORKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 99-106.	1.7	5
32	SYMMETRY AND SYNCHRONY IN COUPLED CELL NETWORKS 2: GROUP NETWORKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 935-951.	1.7	18
33	The lattice of balanced equivalence relations of a coupled cell network. Mathematical Proceedings of the Cambridge Philosophical Society, 2007, 143, 165-183.	0.4	37
34	Periodic dynamics of coupled cell networks I: rigid patterns of synchrony and phase relations. Dynamical Systems, 2007, 22, 389-450.	0.4	21
35	Nonlinear dynamics of networks: the groupoid formalism. Bulletin of the American Mathematical Society, 2006, 43, 305-365.	1.5	287
36	Liapunov stability and adding machines revisited. Dynamical Systems, 2006, 21, 379-384.	0.4	8

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37	Life: porridge would be just right for each universe. Nature, 2006, 444, 1002-1002.	27.8	0
38	SYMMETRY AND SYNCHRONY IN COUPLED CELL NETWORKS 1: FIXED-POINT SPACES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2006, 16, 559-577.	1.7	30
39	SYNCHRONY VERSUS SYMMETRY IN COUPLED CELLS. , 2005, , .		8
40	SchrÃ¶dinger's mousetrap. Nature, 2005, 433, 200-201.	27.8	0
41	Play it again, Psam. Nature, 2005, 433, 556-556.	27.8	0
42	Linear equivalence and ODE-equivalence for coupled cell networks. Nonlinearity, 2005, 18, 1003-1020.	1.4	31
43	ENUMERATION OF HOMOGENEOUS COUPLED CELL NETWORKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2005, 15, 2361-2373.	1.7	6
44	Patterns of Synchrony in Coupled Cell Networks with Multiple Arrows. SIAM Journal on Applied Dynamical Systems, 2005, 4, 78-100.	1.6	225
45	Symmetry Groupoids and Admissible Vector Fields for Coupled Cell Networks. Journal of the London Mathematical Society, 2004, 69, 707-736.	1.0	18
46	Secondary bifurcations in systems with allâ€“toâ€“all coupling. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2003, 459, 1969-1986.	2.1	10
47	Symmetry Groupoids and Patterns of Synchrony in Coupled Cell Networks. SIAM Journal on Applied Dynamical Systems, 2003, 2, 609-646.	1.6	256
48	Selfâ€“organization in evolution: a mathematical perspective. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 1101-1123.	3.4	22
49	Symmetry-Breaking as an Origin of Species. , 2003, , 3-54.		24
50	The Symmetry Perspective. , 2002, , .		280
51	Systems With Emergent Dynamics. AIP Conference Proceedings, 2002, , .	0.4	0
52	Where are the dolphins?. Nature, 2001, 409, 1119-1122.	27.8	10
53	Where drunkards hang out. Nature, 2001, 413, 686-687.	27.8	8
54	HETEROCLINIC CYCLES AND WREATH PRODUCT SYMMETRIES. , 2001, , .		0

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55	A gathering of groups. Nature, 2000, 403, 719-720.	27.8	2
56	The Lorenz attractor exists. Nature, 2000, 406, 948-949.	27.8	187
57	The Classification of Bifurcations with Hidden Symmetries. Proceedings of the London Mathematical Society, 2000, 80, 198-234.	1.3	6
58	Traces of Symmetric Chaos. Science, 2000, 288, 55e-55.	12.6	1
59	Symmetry in locomotor central pattern generators and animal gaits. Nature, 1999, 401, 693-695.	27.8	361
60	DEGENERATE BIFURCATIONS WITH Z2âŠ•Z2-SYMMETRY. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1999, 09, 1653-1667.	1.7	4
61	A modular network for legged locomotion. Physica D: Nonlinear Phenomena, 1998, 115, 56-72.	2.8	178
62	Algebraic path formulation for equivariant bifurcation problems. Mathematical Proceedings of the Cambridge Philosophical Society, 1998, 124, 275-304.	0.4	37
63	Symmetry of Generic Bifurcations in Cubic Domains. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1997, 07, 147-171.	1.7	3
64	Singularity theory and equivariant bifurcation problems with parameter symmetry. Mathematical Proceedings of the Cambridge Philosophical Society, 1996, 120, 547-578.	0.4	49
65	The mathematical tourist. Mathematical Intelligencer, 1996, 18, 52-56.	0.2	1
66	For freewheelers and wannabees. Nature, 1996, 383, 43-43.	27.8	0
67	Pyramid power, people power. Nature, 1996, 383, 218-218.	27.8	3
68	Bounded solutions for non-autonomous parabolic equations. Dynamical Systems, 1996, 11, 109-120.	0.7	17
69	Hidden symmetries and pattern formation in Lapwood convection. Dynamical Systems, 1996, 11, 155-192.	0.7	7
70	The Ultimate in Technology Transfer. Mathematical Gazette, 1996, 80, 163.	0.0	0
71	Coupled cells with internal symmetry: I. Wreath products. Nonlinearity, 1996, 9, 559-574.	1.4	75
72	The mathematical tourist. Mathematical Intelligencer, 1995, 17, 34-36.	0.2	2

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73	The Mathematical Tourist. Mathematical Intelligencer, 1995, 17, 34-34.	0.2	2
74	The mathematical tourist. Mathematical Intelligencer, 1995, 17, 58-61.	0.2	0
75	The mathematical tourist. Mathematical Intelligencer, 1995, 17, 52-54.	0.2	9
76	Bye-Bye Bourbaki Paradigm Shifts in Mathematics. Mathematical Gazette, 1995, 79, 496.	0.0	2
77	DETECTING THE SYMMETRY OF ATTRACTORS FOR SIX OSCILLATORS COUPLED IN A RING. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1995, 05, 209-229.	1.7	11
78	Liapunov stability and adding machines. Ergodic Theory and Dynamical Systems, 1995, 15, 271-290.	0.6	40
79	Fending for themselves. Nature, 1994, 371, 452-452.	27.8	1
80	Reprints of Books Previously Reviewed. Science, 1994, 265, 271-271.	12.6	0
81	Unpredictability: The Broken Dice and Other Mathematical Tales of Chance . Ivar Ekeland. University of Chicago Press, Chicago, 1993. vi, 183 pp., illus. $19.95 or Â£15.95. Translated from the French edition (1991) by Carol Volk.. Science, 1994, 265, 271-271.	12.6	1
82	Hexapodal gaits and coupled nonlinear oscillator models. Biological Cybernetics, 1993, 68, 287-298.	1.3	168
83	Riemann surfaceâ€"crocheted in four colors. Mathematical Intelligencer, 1993, 15, 49-55.	0.2	5
84	The mathematical tourist. Mathematical Intelligencer, 1993, 15, 54-57.	0.2	6
85	The mathematical tourist. Mathematical Intelligencer, 1993, 15, 53-62.	0.2	0
86	BROKEN SYMMETRY AND THE FORMATION OF SPIRAL PATTERNS IN FLUIDS. , 1992, , 187-220.		0
87	A Hopf bifurcation with spherical symmetry. Zeitschrift Fur Angewandte Mathematik Und Physik, 1992, 43, 793-826.	1.4	4
88	Warning â€" handle with care!. Nature, 1992, 355, 16-17.	27.8	35
89	Hopf-steady-state mode interactions with O(2) symmetry. Dynamical Systems, 1991, 6, 149-171.	0.7	10
90	All together now â€¦. Nature, 1991, 350, 557-557.	27.8	8

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91	Circularly covering clathrin. Nature, 1991, 351, 103-103.	27.8	5
92	Deciding the undecidable. Nature, 1991, 352, 664-665.	27.8	67
93	SchrÃ¶dinger's catflap. Nature, 1991, 353, 384-385.	27.8	4
94	Symmetry and chaotic data. Nature, 1991, 354, 113-113.	27.8	10
95	Justifying the means. Nature, 1991, 354, 185-186.	27.8	1
96	3-mode Interactions with O(2) Symmetry and a Model for Taylor-Couette flow. Dynamical Systems, 1991, 6, 267-339.	0.7	4
97	The mathematical tourist. Mathematical Intelligencer, 1990, 12, 49-49.	0.2	0
98	The mathematical tourist. Mathematical Intelligencer, 1990, 12, 52-52.	0.2	0
99	The mathematical tourist. Mathematical Intelligencer, 1990, 12, 39-39.	0.2	1
100	Highly distributed processing. Nature, 1989, 337, 13-13.	27.8	0
101	Big whorls do have little whorls. Nature, 1989, 338, 18-19.	27.8	1
102	Lowering the volume. Nature, 1989, 338, 375-376.	27.8	2
103	Mock theta conjectures. Nature, 1989, 339, 341-341.	27.8	2
104	symmetry breakthrough. Nature, 1989, 341, 389-390.	27.8	1
105	The cross-ratio foliation of binary quartic forms. Geometriae Dedicata, 1988, 27, 263.	0.3	3
106	The ultimate in undecidability. Nature, 1988, 332, 115-116.	27.8	16
107	The beat of a fractal drum. Nature, 1988, 333, 206-207.	27.8	2
108	Yinâ€”yang and the art of noise. Nature, 1988, 335, 394-394.	27.8	1

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109	Stability of periodic solutions in symmetric Hopf bifurcation. Dynamical Systems, 1988, 2, 149-165.	0.7	4
110	Singularities and Groups in Bifurcation Theory. Applied Mathematical Sciences (Switzerland), 1988, , .	0.8	1,514
111	The battle of the biquadrates. Nature, 1987, 328, 384-384.	27.8	0
112	Geometry finds factors faster. Nature, 1987, 325, 199-199.	27.8	0
113	Are mathematicians logical?. Nature, 1987, 325, 386-387.	27.8	0
114	The three-sphere strikes back. Nature, 1987, 325, 579-580.	27.8	0
115	Hilbert's sixteenth problem. Nature, 1987, 326, 248-248.	27.8	3
116	The area of the plane. Nature, 1987, 326, 826-827.	27.8	0
117	Gases exist â€" official!. Nature, 1987, 327, 105-106.	27.8	1
118	The hyperbolic phoenix. Nature, 1987, 328, 16-17.	27.8	3
119	The symplectic camel. Nature, 1987, 329, 17-18.	27.8	6
120	The arithmetic of chaos. Nature, 1987, 329, 670-671.	27.8	2
121	A. N. Kolmogorov (1903â€"1987). Nature, 1987, 330, 314-314.	27.8	0
122	Mathematics: Demystifying the monster. Nature, 1986, 319, 621-622.	27.8	1
123	Topology: The PoincarÃ© conjecture proved. Nature, 1986, 320, 217-218.	27.8	0
124	Mathematics: Hermann Grassmann was right. Nature, 1986, 321, 17-17.	27.8	13
125	Mathematics: The class number problem. Nature, 1986, 321, 474-474.	27.8	0
126	Mathematics: Counting costs of calculation. Nature, 1986, 321, 812-813.	27.8	1

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127	Geometry: Exotic structures on four-space. Nature, 1986, 322, 310-311.	27.8	44
128	Geometry: Non-euclidean kaleidoscopes. Nature, 1986, 323, 114-114.	27.8	0
129	Mathematics: Singular flying pancakes. Nature, 1986, 323, 397-397.	27.8	0
130	Mathematics: The Waring experience. Nature, 1986, 323, 674-674.	27.8	1
131	Mathematics: One hundred per cent proof. Nature, 1986, 324, 406-407.	27.8	1
132	Joins of ideals of subideals of Lie algebras. Archiv Der Mathematik, 1986, 47, 222-228.	0.5	1
133	Hopf Bifurcation in the presence of symmetry. Archive for Rational Mechanics and Analysis, 1985, 87, 107-165.	2.4	221
134	Mathematics: How bent is a knot?. Nature, 1985, 314, 132-132.	27.8	0
135	Mathematics: Feigenbaum's fixed function. Nature, 1985, 314, 675-675.	27.8	0
136	Mathematics: The power of positive thinking. Nature, 1985, 315, 539-539.	27.8	1
137	Mathematics: The Bierberbach gambit. Nature, 1985, 316, 213-214.	27.8	0
138	Mathematics: The duellist and the monster. Nature, 1985, 317, 12-13.	27.8	3
139	Mathematical topology: Solving a knotty problem. Nature, 1985, 317, 290-290.	27.8	0
140	Dynamical systems: Attraction in a new idea. Nature, 1985, 317, 573-574.	27.8	0
141	Mathematics: Classical continued fractals. Nature, 1985, 318, 512-512.	27.8	1
142	Mathematics for young people: The royal institution masterclasses. Mathematical Intelligencer, 1985, 7, 59-64.	0.2	1
143	Mathematics: Three conjectures in one blow. Nature, 1984, 310, 729-730.	27.8	0
144	Mathematics: Five bodies to infinity. Nature, 1984, 312, 398-399.	27.8	2

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145	Bifurcation and hysteresis varieties for the thermal-chainbranching model II: positive modal parameter. Mathematical Proceedings of the Cambridge Philosophical Society, 1984, 96, 331-349.	0.4	0
146	Lie Algebras having Large Cartan Subalgebras. Bulletin of the London Mathematical Society, 1979, 11, 124-128.	0.8	0
147	Nonlinear modeling of multistable perception. Systems Research and Behavioral Science, 1978, 23, 318-334.	0.2	59
148	The Truth about Venn Diagrams. Mathematical Gazette, 1976, 60, 47.	0.0	3
149	Finitely presented infinite-dimensional simple Lie algebras. Archiv Der Mathematik, 1975, 26, 504-507.	0.5	4
150	The Frattini Subalgebras of Certain Infinite-Dimensional Soluble Lie Algebras. Journal of the London Mathematical Society, 1975, s2-11, 207-215.	1.0	3
151	Verbal and Marginal Properties of Non-Associative Algebras. Proceedings of the London Mathematical Society, 1974, s3-28, 129-140.	1.3	8
152	Levi Factors of Infinite-Dimensional Lie Algebras. Journal of the London Mathematical Society, 1972, s2-5, 488-488.	1.0	2
153	Finitely Generated Lie Algebras. Journal of the London Mathematical Society, 1972, s2-5, 697-703.	1.0	14
154	Structure Theorems for a Class of Locally Finite Lie Algebras. Proceedings of the London Mathematical Society, 1972, s3-24, 79-100.	1.3	13
155	Bounds for the Dimensions of Certain Lie Algebras. Journal of the London Mathematical Society, 1971, s2-3, 731-732.	1.0	4