György Szabó

List of Publications by Year in descending order

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108 papers 10,944 citations

57758 44 h-index 29157 104 g-index

108 all docs

 $\frac{108}{\text{docs citations}}$

108 times ranked 2426 citing authors

#	Article	IF	Citations
1	Evolutionary games on graphs. Physics Reports, 2007, 446, 97-216.	25.6	2,360
2	Evolutionary prisoner's dilemma game on a square lattice. Physical Review E, 1998, 58, 69-73.	2.1	1,261
3	Phase Transitions and Volunteering in Spatial Public Goods Games. Physical Review Letters, 2002, 89, 118101.	7.8	542
4	Phase diagrams for an evolutionary prisoner's dilemma game on two-dimensional lattices. Physical Review E, 2005, 72, 047107.	2.1	440
5	Game theory and physics. American Journal of Physics, 2005, 73, 405-414.	0.7	414
6	Cooperation enhanced by inhomogeneous activity of teaching for evolutionary Prisoner's Dilemma games. Europhysics Letters, 2007, 77, 30004.	2.0	381
7	Topology-independent impact of noise on cooperation in spatial public goods games. Physical Review E, 2009, 80, 056109.	2.1	321
8	Punish, but not too hard: how costly punishment spreads in the spatial public goods game. New Journal of Physics, 2010, 12, 083005.	2.9	314
9	Phase diagrams for the spatial public goods game with pool punishment. Physical Review E, 2011, 83, 036101.	2.1	309
10	Evolutionary Establishment of Moral and Double Moral Standards through Spatial Interactions. PLoS Computational Biology, 2010, 6, e1000758.	3.2	294
11	Cooperation in the noisy case: Prisoner's dilemma game on two types of regular random graphs. Physical Review E, 2006, 73, 067103.	2.1	287
12	Evolutionary prisoner's dilemma games with voluntary participation. Physical Review E, 2002, 66, 062903.	2.1	224
13	Defense Mechanisms of Empathetic Players in the Spatial Ultimatum Game. Physical Review Letters, 2012, 109, 078701.	7.8	188
14	Impact of aging on the evolution of cooperation in the spatial prisoner's dilemma game. Physical Review E, 2009, 80, 021901.	2.1	173
15	Restricted connections among distinguished players support cooperation. Physical Review E, 2008, 78, 066101.	2.1	166
16	Diversity of reproduction rate supports cooperation in the prisoner's dilemma game on complex networks. European Physical Journal B, 2008, 61, 505-509.	1.5	157
17	Rock-scissors-paper game on regular small-world networks. Journal of Physics A, 2004, 37, 2599-2609.	1.6	152
18	Prisoner's dilemma and public goods games in different geometries: Compulsory versus voluntary interactions. Complexity, 2003, 8, 31-38.	1.6	145

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19	Evolutionary prisoner's dilemma game on Newman-Watts networks. Physical Review E, 2008, 77, 026109.	2.1	122
20	Competition of individual and institutional punishments in spatial public goods games. Physical Review E, 2011, 84, 046106.	2.1	121
21	Selection of noise level in strategy adoption for spatial social dilemmas. Physical Review E, 2009, 80, 056112.	2.1	116
22	Cooperation for volunteering and partially random partnerships. Physical Review E, 2004, 69, 036107.	2.1	115
23	Cyclical interactions with alliance-specific heterogeneous invasion rates. Physical Review E, 2007, 75, 052102.	2.1	111
24	Defector-accelerated cooperativeness and punishment in public goods games with mutations. Physical Review E, 2010, 81, 057104.	2.1	110
25	Evolutionary prisoner's dilemma game on hierarchical lattices. Physical Review E, 2005, 71, 036133.	2.1	106
26	Cooperation in spatial prisoner's dilemma with two types of players for increasing number of neighbors. Physical Review E, 2009, 79, 016106.	2.1	96
27	Selection of dynamical rules in spatial Prisoner's Dilemma games. Europhysics Letters, 2009, 87, 18007.	2.0	89
28	Phase diagrams for three-strategy evolutionary prisoner's dilemma games on regular graphs. Physical Review E, 2009, 80, 056104.	2.1	88
29	Spatial evolutionary prisoner's dilemma game with three strategies and external constraints. Physical Review E, 2000, 62, 1095-1103.	2.1	83
30	Phase transition and selection in a four-species cyclic predator-prey model. Physical Review E, 2004, 69, 031911.	2.1	79
31	Selfishness, fraternity, and other-regarding preference in spatial evolutionary games. Journal of Theoretical Biology, 2012, 299, 81-87.	1.7	76
32	Dynamics of populations on the verge of extinction. Oikos, 2005, 109, 291-296.	2.7	75
33	Phase transitions for rock-scissors-paper game on different networks. Physical Review E, 2004, 70, 037102.	2.1	72
34	Phase transition in a spatial Lotka-Volterra model. Physical Review E, 2001, 63, 061904.	2.1	71
35	Diverging fluctuations in a spatial five-species cyclic dominance game. Physical Review E, 2013, 88, 022123.	2.1	70
36	Motion of influential players can support cooperation in Prisoner's Dilemma. European Physical Journal B, 2009, 71, 579-585.	1.5	69

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37	Evolutionary potential games on lattices. Physics Reports, 2016, 624, 1-60.	25.6	67
38	Accuracy in strategy imitations promotes the evolution of fairness in the spatial ultimatum game. Europhysics Letters, 2012, 100, 28005.	2.0	64
39	Defensive alliances in spatial models of cyclical population interactions. Physical Review E, 2001, 64, 042902.	2.1	61
40	Self-organizing patterns maintained by competing associations in a six-species predator-prey model. Physical Review E, 2008, 77, 041919.	2.1	56
41	Competing associations in six-species predator–prey models. Journal of Physics A, 2005, 38, 6689-6702.	1.6	54
42	Three-state cyclic voter model extended with Potts energy. Physical Review E, 2002, 65, 036115.	2.1	48
43	Segregation process and phase transition in cyclic predator-prey models with an even number of species. Physical Review E, 2007, 76, 051921.	2.1	47
44	Phase transitions induced by variation of invasion rates in spatial cyclic predator-prey models with four or six species. Physical Review E, 2008, 77, 011906.	2.1	46
45	Competing associations in bacterial warfare with two toxins. Journal of Theoretical Biology, 2007, 248, 736-744.	1.7	43
46	Thermal strain during Czochralski growth. Journal of Crystal Growth, 1985, 73, 131-141.	1.5	38
47	Magnetic hysteresis in an Ising-like dipole-dipole model. Physical Review B, 1998, 58, 5584-5587.	3.2	37
48	Ordering in spatial evolutionary games for pairwise collective strategy updates. Physical Review E, 2010, 82, 026110.	2.1	32
49	Vortex dynamics in a three-state model under cyclic dominance. Physical Review E, 1999, 60, 3776-3780.	2.1	31
50	Four classes of interactions for evolutionary games. Physical Review E, 2015, 92, 022820.	2.1	26
51	Correlations induced by transport in one-dimensional lattice gas. Physical Review A, 1991, 44, 6375-6378.	2.5	22
52	Three-state Potts model in combination with the rock-scissors-paper game. Physical Review E, 2005, 71, 027102.	2.1	21
53	Coexistence of fraternity and egoism for spatial social dilemmas. Journal of Theoretical Biology, 2013, 317, 126-132.	1.7	21
54	Phase-transition study of a one-dimensional probabilistic site-exchange cellular automaton. Physical Review E, 1993, 48, 3168-3171.	2.1	19

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55	Probability currents and entropy production in nonequilibrium lattice systems. Physical Review E, 2010, 82, 011105.	2.1	19
56	Fourier decomposition of payoff matrix for symmetric three-strategy games. Physical Review E, 2014, 90, 042811.	2.1	18
57	Lattice gas model on tetrahedral sites of a BCC lattice. Journal of Physics C: Solid State Physics, 1986, 19, 3775-3787.	1.5	16
58	Branching annihilating random walk on random regular graphs. Physical Review E, 2000, 62, 7474-7477.	2.1	16
59	Generalized mean-field study of a driven lattice gas. Physical Review E, 1996, 53, 2196-2199.	2.1	15
60	Vertex dynamics during domain growth in three-state models. Physical Review E, 2004, 70, 027101.	2.1	15
61	Extended mean-field study of a stochastic cellular automaton. Physical Review E, 1994, 49, 2764-2768.	2.1	14
62	Survival of species in patchy landscapes: percolation in space and time. , 2007, , 409-440.		14
63	Growth of BCSCO single crystals by a slow-cooling flux method. Journal of the Less Common Metals, 1989, 155, 229-234.	0.8	13
64	Anisotropic ordering in a two-temperature lattice gas. Physical Review E, 1997, 55, 2255-2259.	2.1	13
65	Spreading of families in cyclic predator-prey models. Physical Review E, 2004, 70, 012901.	2.1	13
66	Payoff components and their effects in a spatial three-strategy evolutionary social dilemma. Physical Review E, 2015, 92, 012813.	2.1	13
67	Extension of a spatial evolutionary coordination game with neutral options. Physical Review E, 2016, 93, 052108.	2.1	13
68	Social dilemmas in multistrategy evolutionary potential games. Physical Review E, 2018, 97, 012305.	2.1	13
69	Generalized contact process on random environments. Physical Review E, 2002, 65, 066111.	2.1	12
70	Evolutionary matching-pennies game on bipartite regular networks. Physical Review E, 2014, 89, 042820.	2.1	12
71	Breaking of forward-backward symmetry in driven systems. Physical Review E, 1993, 48, 611-613.	2.1	11
72	Anisotropic polydomain structure in a driven lattice gas with repulsive interaction. Physical Review E, 1994, 49, 299-304.	2.1	11

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73	Influence of extended dynamics on phase transitions in a driven lattice gas. Physical Review E, 2002, 65, 047101.	2.1	10
74	The role of mixed strategies in spatial evolutionary games. Physica A: Statistical Mechanics and Its Applications, 2016, 462, 198-206.	2.6	10
75	Evolutionary games with coordination and self-dependent interactions. Physical Review E, 2017, 95, 012303.	2.1	10
76	Transport-driven reorientation in a square lattice-gas model. Physical Review A, 1990, 41, 2235-2238.	2.5	9
77	Bursts in three-strategy evolutionary ordinal potential games on a square lattice. Physica A: Statistical Mechanics and Its Applications, 2019, 525, 1379-1387.	2.6	9
78	Heat diffusivity and heat conductivity of Ni near the Curie point. Solid State Communications, 1977, 21, 487-490.	1.9	8
79	Hysteresis modeling. Journal of Magnetism and Magnetic Materials, 2000, 215-216, 592-596.	2.3	8
80	Congestion phenomena caused by matching pennies in evolutionary games. Physical Review E, 2015, 91, 032110.	2.1	8
81	Separation of cyclic and starlike hierarchical dominance in evolutionary matrix games. Physical Review E, 2017, 95, 012320.	2.1	8
82	Self-organizing domain structure in a driven lattice gas. Physical Review E, 1997, 55, 5275-5279.	2.1	7
83	Branching annihilating random walks with parity conservation on a square lattice. Physical Review E, 1999, 59, R2509-R2511.	2.1	7
84	Self-organizing patterns in an evolutionary rock-paper-scissors game for stochastic synchronized strategy updates. Physical Review E, 2014, 90, 042920.	2.1	7
85	Evolutionary games combining two or three pair coordinations on a square lattice. Physical Review E, 2017, 96, 042101.	2.1	7
86	Fluctuations of melt temperature and growth rate during Bi4Ge3O12 growth. Journal of Crystal Growth, 1986, 79, 303-307.	1.5	5
87	Orientation in a driven lattice gas. Physical Review B, 1992, 46, 11432-11438.	3.2	5
88	Experimental model of magnetic Czochralski growth. Journal of Crystal Growth, 1986, 78, 558-560.	1.5	4
89	Evolution and extinction of families in cellular automata. Physical Review E, 1994, 49, 5900-5902.	2.1	4
90	Domain growth controlled by interfacial transport in two-dimensional systems. Physical Review E, 1998, 57, 6172-6175.	2.1	4

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91	Anisotropic invasion and its consequences in two-strategy evolutionary games on a square lattice. Physical Review E, 2016, 94, 052314.	2.1	4
92	Entropy Affects the Competition of Ordered Phases. Entropy, 2018, 20, 115.	2.2	4
93	A lattice-gas model for alkali-metal fullerides: face-centred-cubic structure. Journal of Physics Condensed Matter, 1996, 8, 10959-10971.	1.8	3
94	Hysteresis in a dipolar Ising model. Physica B: Condensed Matter, 2000, 275, 187-190.	2.7	3
95	Interplay of Elementary Interactions Causing Social Traps in Evolutionary Games. Frontiers in Physics, 2020, 8, .	2.1	3
96	General features of Nash equilibria in combinations of elementary interactions in symmetric two-person games. European Physical Journal B, 2021, 94, 1.	1.5	3
97	Coupled-chain approximation for driven lattice-gas models. Physical Review B, 1993, 47, 8260-8262.	3.2	2
98	Instabilities and pattern formation in driven diffusive systems. Physical Review E, 1994, 49, 3508-3511.	2.1	2
99	Statistical analyses of cyclic and starlike hierarchical dominances in directed graphs. Physical Review E, 2019, 100, 032301.	2.1	2
100	Influence of temperature oscillation on measured crystal weight during Czochralski growth. Journal of Crystal Growth, 1987, 83, 599-601.	1.5	1
101	Monte carlo simulation of a coulomb gas in simple cubic lattice. Solid State Ionics, 1988, 28-30, 86-88.	2.7	1
102	Monte Carlo simulation of reorientation driven by oxygen transport in YBa2Cu3O6.5. Physical Review B, 1991, 43, 13614-13617.	3.2	1
103	Universality change in stochastic cellular automaton with applied site exchange. Physical Review E, 1994, 49, R3555-R3557.	2.1	1
104	A lattice-gas model for alkali-metal fullerides: body-centred-cubic structure. Journal of Physics Condensed Matter, 1998, 10, 4211-4219.	1.8	1
105	A cellular automaton with two phase transitions. Journal of Physics A, 2002, 35, L189-L192.	1.6	1
106	Games, graphs and Kirchhoff laws. Physica A: Statistical Mechanics and Its Applications, 2019, 521, 416-423.	2.6	1
107	Thermodynamic aspects of chemically curved crystals. Journal of Materials Science, 1989, 24, 2295-2299.	3.7	0
108	Mechanisms Supporting Cooperation for the Evolutionary Prisoner's Dilemma Games. New Economic Windows, 2010, , 24-31.	1.0	0