György SZABÓ

List of Articles by Year in descending order

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115 peer-reviewed articles	12,365 peer-reviewed citations	63466 44 peer-reviewed h-index	747485 3.14 score
119 documents	13643 doc citations	80749 44 h-index	5664 citing authors

#	Article	IF	Citations
1	Phase transitions and symmetry breaking of cooperation on lattices. Physical Review E, 2025, 111, .	1.5	4
2	Orthogonal elementary interactions for bimatrix games. Physica A: Statistical Mechanics and Its Applications, 2025, 677, 130920.	2.1	0
3	Evolutionarily stable payoff matrix in hawk–dove games. Bmc Ecology and Evolution, 2024, 24, .	1.2	4
4	Spontaneous symmetry breaking of cooperation between species. PNAS Nexus, 2024, 3, .	2.4	7
5	Quantification and statistical analysis of topological features of recursive trees. Physica A: Statistical Mechanics and Its Applications, 2023, 617, 128672.	2.1	0
6	General features of Nash equilibria in combinations of elementary interactions in symmetric two-person games. European Physical Journal B, 2021, 94, .	1.1	4
7	Interplay of Elementary Interactions Causing Social Traps in Evolutionary Games. Frontiers in Physics, 2020, 8, .	1.3	5
8	Statistical analyses of cyclic and starlike hierarchical dominances in directed graphs. Physical Review E, 2019, 100, .	1.5	3
9	Games, graphs and Kirchhoff laws. Physica A: Statistical Mechanics and Its Applications, 2019, 521, 416-423.	2.1	2
10	Bursts in three-strategy evolutionary ordinal potential games on a square lattice. Physica A: Statistical Mechanics and Its Applications, 2019, 525, 1379-1387.	2.1	13
11	Social dilemmas in multistrategy evolutionary potential games. Physical Review E, 2018, 97, .	1.5	16
12	Entropy Affects the Competition of Ordered Phases. Entropy, 2018, 20, 115.	1.2	4
13	Separation of cyclic and starlike hierarchical dominance in evolutionary matrix games. Physical Review E, 2017, 95, .	1.5	10
14	Evolutionary games combining two or three pair coordinations on a square lattice. Physical Review E, 2017, 96, .	1.5	10
15	Evolutionary games with coordination and self-dependent interactions. Physical Review E, 2017, 95, .	1.5	10
16	Anisotropic invasion and its consequences in two-strategy evolutionary games on a square lattice. Physical Review E, 2016, 94, .	1.5	4
17	Extension of a spatial evolutionary coordination game with neutral options. Physical Review E, 2016, 93, .	1.5	16
18	The role of mixed strategies in spatial evolutionary games. Physica A: Statistical Mechanics and Its Applications, 2016, 462, 198-206.	2.1	12

#	ARTICLE	IF	CITATIONS
19	Evolutionary potential games on lattices. Physics Reports, 2016, 624, 1-60.	17.1	76
20	Payoff components and their effects in a spatial three-strategy evolutionary social dilemma. Physical Review E, 2015, 92, .	1.5	13
21	Congestion phenomena caused by matching pennies in evolutionary games. Physical Review E, 2015, 91, .	1.5	8
22	Four classes of interactions for evolutionary games. Physical Review E, 2015, 92, .	1.5	30
23	Self-organizing patterns in an evolutionary rock-paper-scissors game for stochastic synchronized strategy updates. Physical Review E, 2014, 90, .	1.5	7
24	Evolutionary matching-pennies game on bipartite regular networks. Physical Review E, 2014, 89, .	1.5	13
25	Fourier decomposition of payoff matrix for symmetric three-strategy games. Physical Review E, 2014, 90, .	1.5	18
26	Coexistence of fraternity and egoism for spatial social dilemmas. Journal of Theoretical Biology, 2013, 317, 126-132.	1.1	30
27	Diverging fluctuations in a spatial five-species cyclic dominance game. Physical Review E, 2013, 88, .	1.5	74
28	Defense Mechanisms of Empathetic Players in the Spatial Ultimatum Game. Physical Review Letters, 2012, 109, .	5.8	213
29	Accuracy in strategy imitations promotes the evolution of fairness in the spatial ultimatum game. Europhysics Letters, 2012, 100, 28005.	1.3	75
30	Selfishness, fraternity, and other-regarding preference in spatial evolutionary games. Journal of Theoretical Biology, 2012, 299, 81-87.	1.1	91
31	Phase diagrams for the spatial public goods game with pool punishment. Physical Review E, 2011, 83, .	1.5	399
32	Competition of individual and institutional punishments in spatial public goods games. Physical Review E, 2011, 84, .	1.5	182
33	Defector-accelerated cooperativeness and punishment in public goods games with mutations. Physical Review E, 2010, 81, .	1.5	132
34	Evolutionary Establishment of Moral and Double Moral Standards through Spatial Interactions. PLoS Computational Biology, 2010, 6, e1000758.	1.9	355
35	Punish, but not too hard: how costly punishment spreads in the spatial public goods game. New Journal of Physics, 2010, 12, 083005.	1.8	416
36	Ordering in spatial evolutionary games for pairwise collective strategy updates. Physical Review E, 2010, 82, .	1.5	38

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37	Probability currents and entropy production in nonequilibrium lattice systems. Physical Review E, 2010, 82, .	1.5	26
38	Impact of aging on the evolution of cooperation in the spatial prisoner's dilemma game. Physical Review E, 2009, 80, .	1.5	194
39	Selection of noise level in strategy adoption for spatial social dilemmas. Physical Review E, 2009, 80, .	1.5	128
40	Phase diagrams for three-strategy evolutionary prisoner's dilemma games on regular graphs. Physical Review E, 2009, 80, .	1.5	103
41	Topology-independent impact of noise on cooperation in spatial public goods games. Physical Review E, 2009, 80, .	1.5	429
42	Cooperation in spatial prisoner's dilemma with two types of players for increasing number of neighbors. Physical Review E, 2009, 79, .	1.5	105
43	Motion of influential players can support cooperation in Prisoner's Dilemma. European Physical Journal B, 2009, 71, 579-585.	1.1	71
44	Selection of dynamical rules in spatial Prisoner's Dilemma games. Europhysics Letters, 2009, 87, 18007.	1.3	98
45	Diversity of reproduction rate supports cooperation in the prisoner's dilemma game on complex networks. European Physical Journal B, 2008, 61, 505-509.	1.1	174
46	Restricted connections among distinguished players support cooperation. Physical Review E, 2008, 78, .	1.5	223
47	Evolutionary prisoner's dilemma game on Newman-Watts networks. Physical Review E, 2008, 77, .	1.5	134
48	Phase transitions induced by variation of invasion rates in spatial cyclic predator-prey models with four or six species. Physical Review E, 2008, 77, .	1.5	48
49	Self-organizing patterns maintained by competing associations in a six-species predator-prey model. Physical Review E, 2008, 77, .	1.5	61
50	Cyclical interactions with alliance-specific heterogeneous invasion rates. Physical Review E, 2007, 75, .	1.5	117
51	Structure and tie strengths in mobile communication networks. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 7332-7336.	5.2	1,574
52	Cooperation enhanced by inhomogeneous activity of teaching for evolutionary Prisoner's Dilemma games. Europhysics Letters, 2007, 77, 30004.	1.3	427
53	Segregation process and phase transition in cyclic predator-prey models with an even number of species. Physical Review E, 2007, 76, .	1.5	52
54	Competing associations in bacterial warfare with two toxins. Journal of Theoretical Biology, 2007, 248, 736-744.	1.1	44

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55	Evolutionary games on graphs. Physics Reports, 2007, 446, 97-216.	17.1	2,768
56	Cooperation in the noisy case: Prisoner's dilemma game on two types of regular random graphs. Physical Review E, 2006, 73, .	1.5	315
57	Competing associations in six-species predator–prey models. Journal of Physics A, 2005, 38, 6689-6702.	1.5	55
58	Evolutionary prisoner's dilemma game on hierarchical lattices. Physical Review E, 2005, 71, .	1.5	114
59	Three-state Potts model in combination with the rock-scissors-paper game. Physical Review E, 2005, 71, .	1.5	23
60	Phase diagrams for an evolutionary prisoner's dilemma game on two-dimensional lattices. Physical Review E, 2005, 72, .	1.5	507
61	Game theory and physics. American Journal of Physics, 2005, 73, 405-414.	0.5	486
62	Rock-scissors-paper game on regular small-world networks. Journal of Physics A, 2004, 37, 2599-2609.	1.5	168
63	Phase transition and selection in a four-species cyclic predator-prey model. Physical Review E, 2004, 69, .	1.5	84
64	Spreading of families in cyclic predator-prey models. Physical Review E, 2004, 70, .	1.5	14
65	Cooperation for volunteering and partially random partnerships. Physical Review E, 2004, 69, .	1.5	125
66	Vertex dynamics during domain growth in three-state models. Physical Review E, 2004, 70, .	1.5	16
67	Phase transitions for rock-scissors-paper game on different networks. Physical Review E, 2004, 70, .	1.5	82
68	Prisoner's dilemma and public goods games in different geometries: Compulsory versus voluntary interactions. Complexity, 2003, 8, 31-38.	0.8	164
69	Influence of extended dynamics on phase transitions in a driven lattice gas. Physical Review E, 2002, 65, .	1.5	10
70	Three-state cyclic voter model extended with Potts energy. Physical Review E, 2002, 65, .	1.5	55
71	Evolutionary prisoner's dilemma games with voluntary participation. Physical Review E, 2002, 66, .	1.5	266
72	A cellular automaton with two phase transitions. Journal of Physics A, 2002, 35, L189-L192.	1.5	1

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73	Generalized contact process on random environments. Physical Review E, 2002, 65, .	1.5	12
74	Phase Transitions and Volunteering in Spatial Public Goods Games. Physical Review Letters, 2002, 89, .	5.8	617
75	Phase transition in a spatial Lotka-Volterra model. Physical Review E, 2001, 63, .	1.5	74
76	Defensive alliances in spatial models of cyclical population interactions. Physical Review E, 2001, 64, .	1.5	63
77	Hysteresis in a dipolar Ising model. Physica B: Condensed Matter, 2000, 275, 187-190.	2.2	3
78	Hysteresis modeling. Journal of Magnetism and Magnetic Materials, 2000, 215-216, 592-596.	2.1	8
79	Branching annihilating random walk on random regular graphs. Physical Review E, 2000, 62, 7474-7477.	1.5	16
80	Spatial evolutionary prisoner's dilemma game with three strategies and external constraints. Physical Review E, 2000, 62, 1095-1103.	1.5	86
81	Branching annihilating random walks with parity conservation on a square lattice. Physical Review E, 1999, 59, R2509-R2511.	1.5	8
82	Vortex dynamics in a three-state model under cyclic dominance. Physical Review E, 1999, 60, 3776-3780.	1.5	33
83	Magnetic hysteresis in an Ising-like dipole-dipole model. Physical Review B, 1998, 58, 5584-5587.	2.4	37
84	A lattice-gas model for alkali-metal fullerides: body-centred-cubic structure. Journal of Physics Condensed Matter, 1998, 10, 4211-4219.	1.6	1
85	Evolutionary prisoner's dilemma game on a square lattice. Physical Review E, 1998, 58, 69-73.	1.5	1,561
86	Domain growth controlled by interfacial transport in two-dimensional systems. Physical Review E, 1998, 57, 6172-6175.	1.5	4
87	Anisotropic ordering in a two-temperature lattice gas. Physical Review E, 1997, 55, 2255-2259.	1.5	13
88	Self-organizing domain structure in a driven lattice gas. Physical Review E, 1997, 55, 5275-5279.	1.5	7
89	Generalized mean-field study of a driven lattice gas. Physical Review E, 1996, 53, 2196-2199.	1.5	15
90	A lattice-gas model for alkali-metal fullerides: face-centred-cubic structure. Journal of Physics Condensed Matter, 1996, 8, 10959-10971.	1.6	3

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91	Anisotropic polydomain structure in a driven lattice gas with repulsive interaction. Physical Review E, 1994, 49, 299-304.	1.5	11
92	Extended mean-field study of a stochastic cellular automaton. Physical Review E, 1994, 49, 2764-2768.	1.5	14
93	Instabilities and pattern formation in driven diffusive systems. Physical Review E, 1994, 49, 3508-3511.	1.5	2
94	Evolution and extinction of families in cellular automata. Physical Review E, 1994, 49, 5900-5902.	1.5	4
95	Universality change in stochastic cellular automaton with applied site exchange. Physical Review E, 1994, 49, R3555-R3557.	1.5	1
96	Coupled-chain approximation for driven lattice-gas models. Physical Review B, 1993, 47, 8260-8262.	2.4	2
97	Breaking of forward-backward symmetry in driven systems. Physical Review E, 1993, 48, 611-613.	1.5	11
98	Phase-transition study of a one-dimensional probabilistic site-exchange cellular automaton. Physical Review E, 1993, 48, 3168-3171.	1.5	19
99	Orientation in a driven lattice gas. Physical Review B, 1992, 46, 11432-11438.	2.4	5
100	Enhanced fluctuations in driven lattice gases. Physica A: Statistical Mechanics and Its Applications, 1992, 191, 445-448.	2.1	2
101	Correlations induced by transport in one-dimensional lattice gas. Physical Review A, 1991, 44, 6375-6378.	1.8	26
102	Monte Carlo simulation of reorientation driven by oxygen transport inYBa2Cu3O6.5. Physical Review B, 1991, 43, 13614-13617.	2.4	1
103	Transport-driven reorientation in a square lattice-gas model. Physical Review A, 1990, 41, 2235-2238.	1.8	9
104	Thermodynamic aspects of chemically curved crystals. Journal of Materials Science, 1989, 24, 2295-2299.	2.8	0
105	Growth of BCSCO single crystals by a slow-cooling flux method. Journal of the Less Common Metals, 1989, 155, 229-234.	0.7	14
106	Monte carlo simulation of a coulomb gas in simple cubic lattice. Solid State Ionics, 1988, 28-30, 86-88.	2.6	1
107	Growth properties of YBa2Cu3O7 single crystals. Physica C: Superconductivity and Its Applications, 1988, 153-155, 415-416.	0.9	2
108	Simulation of Czochralski bulk flow under vertical magnetic field. Acta Physica Hungarica, 1987, 61, 177-180.	0.1	0

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109	Experimental model of magnetic Czochralski growth. Journal of Crystal Growth, 1986, 78, 558-560.	1.7	4
110	Fluctuations of melt temperature and growth rate during Bi4Ge3O12 growth. Journal of Crystal Growth, 1986, 79, 303-307.	1.7	5
111	The lattice gas model on tetrahedral sites of a BCC lattice: anisotropic diffusion in the intermediate phase. Journal of Physics C: Solid State Physics, 1986, 19, L273-L277.	1.4	10
112	Lattice gas model on tetrahedral sites of a BCC lattice. Journal of Physics C: Solid State Physics, 1986, 19, 3775-3787.	1.4	16
113	Thermal strain during Czochralski growth. Journal of Crystal Growth, 1985, 73, 131-141.	1.7	38
114	Heat diffusivity and heat conductivity of Ni near the Curie point. Solid State Communications, 1977, 21, 487-490.	2.0	8
115	Derivation of potential for group interactions in evolutionary games. Physical Review E, 0, 112, .	1.5	0