

# Karl Sigmund

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/11438044/karl-sigmund-publications-by-citations.pdf>

**Version:** 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

96  
papers

16,963  
citations

45  
h-index

116  
g-index

116  
ext. papers

19,510  
ext. citations

8.9  
avg, IF

6.96  
L-index

#	Paper	IF	Citations
96	Evolutionary Games and Population Dynamics <b>1998</b> ,		2150
95	Evolution of indirect reciprocity by image scoring. <i>Nature</i> , <b>1998</b> , 393, 573-7	50.4	1701
94	Evolution of indirect reciprocity. <i>Nature</i> , <b>2005</b> , 437, 1291-8	50.4	1669
93	A strategy of win-stay, lose-shift that outperforms tit-for-tat in the Prisoner's Dilemma game. <i>Nature</i> , <b>1993</b> , 364, 56-8	50.4	1221
92	Volunteering as Red Queen mechanism for cooperation in public goods games. <i>Science</i> , <b>2002</b> , 296, 1129-32	33.3	745
91	Tit for tat in heterogeneous populations. <i>Nature</i> , <b>1992</b> , 355, 250-253	50.4	729
90	Evolutionary dynamics of biological games. <i>Science</i> , <b>2004</b> , 303, 793-9	33.3	725
89	Evolutionary game dynamics. <i>Bulletin of the American Mathematical Society</i> , <b>2003</b> , 40, 479-520	1.3	712
88	Fairness versus reason in the ultimatum game. <i>Science</i> , <b>2000</b> , 289, 1773-5	33.3	629
87	Via freedom to coercion: the emergence of costly punishment. <i>Science</i> , <b>2007</b> , 316, 1905-7	33.3	517
86	Replicator dynamics. <i>Journal of Theoretical Biology</i> , <b>1983</b> , 100, 533-538	2.3	426
85	The dynamics of indirect reciprocity. <i>Journal of Theoretical Biology</i> , <b>1998</b> , 194, 561-74	2.3	374
84	The Calculus of Selfishness <b>2010</b> ,		368
83	Ergodic Theory on Compact Spaces. <i>Lecture Notes in Mathematics</i> , <b>1976</b> ,	0.4	368
82	Social learning promotes institutions for governing the commons. <i>Nature</i> , <b>2010</b> , 466, 861-3	50.4	336
81	Punish or perish? Retaliation and collaboration among humans. <i>Trends in Ecology and Evolution</i> , <b>2007</b> , 22, 593-600	10.9	270
80	Punishment and reputation in spatial public goods games. <i>Proceedings of the Royal Society B: Biological Sciences</i> , <b>2003</b> , 270, 1099-104	4.4	259

79	Replicator dynamics for optional public good games. <i>Journal of Theoretical Biology</i> , <b>2002</b> , 218, 187-94	2.3	232
78	Exploration dynamics in evolutionary games. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 709-12	11.5	226
77	The evolution of stochastic strategies in the Prisoner's Dilemma. <i>Acta Applicandae Mathematicae</i> , <b>1990</b> , 20, 247-265	1.1	194
76	Evolution of extortion in Iterated Prisoner's Dilemma games. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 6913-8	11.5	169
75	The arithmetics of mutual help. <i>Scientific American</i> , <b>1995</b> , 272, 76-81	0.5	166
74	Incentives and opportunism: from the carrot to the stick. <i>Proceedings of the Royal Society B: Biological Sciences</i> , <b>2010</b> , 277, 2427-33	4.4	164
73	The logic of reprobation: assessment and action rules for indirect reciprocity. <i>Journal of Theoretical Biology</i> , <b>2004</b> , 231, 475-86	2.3	154
72	Punishing and abstaining for public goods. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 495-7	11.5	144
71	Indirect reciprocity, image scoring, and moral hazard. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2005</b> , 102, 2666-70	11.5	114
70	The spatial ultimatum game. <i>Proceedings of the Royal Society B: Biological Sciences</i> , <b>2000</b> , 267, 2177-82	4.4	112
69	The Alternating Prisoner's Dilemma. <i>Journal of Theoretical Biology</i> , <b>1994</b> , 168, 219-226	2.3	112
68	Oscillations in the evolution of reciprocity. <i>Journal of Theoretical Biology</i> , <b>1989</b> , 137, 21-6	2.3	111
67	On dynamical systems with the specification property. <i>Transactions of the American Mathematical Society</i> , <b>1974</b> , 190, 285-285	1	97
66	Coyness, philandering and stable strategies. <i>Animal Behaviour</i> , <b>1981</b> , 29, 186-192	2.8	93
65	Generic properties of invariant measures for AxiomA-diffeomorphisms. <i>Inventiones Mathematicae</i> , <b>1970</b> , 11, 99-109	2.2	92
64	The good, the bad and the discriminator--errors in direct and indirect reciprocity. <i>Journal of Theoretical Biology</i> , <b>2006</b> , 239, 183-94	2.3	89
63	The take-it-or-leave-it option allows small penalties to overcome social dilemmas. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 1165-9	11.5	88
62	Evolutionary game theory. <i>Current Biology</i> , <b>1999</b> , 9, R503-5	6.3	76

61	Moral assessment in indirect reciprocity. <i>Journal of Theoretical Biology</i> , <b>2012</b> , 299, 25-30	2.3	74
60	Topological dynamics of transformations induced on the space of probability measures. <i>Monatshefte Fur Mathematik</i> , <b>1975</b> , 79, 81-92	0.7	73
59	The logic of contrition. <i>Journal of Theoretical Biology</i> , <b>1997</b> , 185, 281-93	2.3	60
58	Partners or rivals? Strategies for the iterated prisoner's dilemma. <i>Games and Economic Behavior</i> , <b>2015</b> , 92, 41-52	1.1	58
57	The competition of assessment rules for indirect reciprocity. <i>Journal of Theoretical Biology</i> , <b>2010</b> , 263, 13-9	2.3	56
56	Automata, repeated games and noise. <i>Journal of Mathematical Biology</i> , <b>1995</b> , 33, 703	2	55
55	Public goods with punishment and abstaining in finite and infinite populations. <i>Biological Theory</i> , <b>2008</b> , 3, 114-122	1.7	54
54	Immune responses against multiple epitopes. <i>Journal of Theoretical Biology</i> , <b>1995</b> , 175, 325-53	2.3	54
53	Game-dynamical aspects of the prisoner's dilemma. <i>Applied Mathematics and Computation</i> , <b>1989</b> , 30, 191-213	2.7	50
52	Selfregulation of behaviour in animal societies. <i>Biological Cybernetics</i> , <b>1981</b> , 40, 1-8	2.8	49
51	Dynamics of Evolutionary Optimization. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , <b>1985</b> , 89, 668-682		41
50	Games of corruption: how to suppress illegal logging. <i>Journal of Theoretical Biology</i> , <b>2015</b> , 367, 1-13	2.3	36
49	Mass action kinetics of selfreplication in flow reactors. <i>Journal of Mathematical Analysis and Applications</i> , <b>1980</b> , 78, 88-112	1.1	34
48	Selfregulation of behaviour in animal societies. <i>Biological Cybernetics</i> , <b>1981</b> , 40, 17-25	2.8	32
47	Selfregulation of behaviour in animal societies. <i>Biological Cybernetics</i> , <b>1981</b> , 40, 9-15	2.8	31
46	Sympathy and similarity: the evolutionary dynamics of cooperation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 8405-6	11.5	30
45	On the dynamics of asymmetric games. <i>Theoretical Population Biology</i> , <b>1991</b> , 39, 345-357	1.2	30
44	Freedom, enforcement, and the social dilemma of strong altruism. <i>Journal of Evolutionary Economics</i> , <b>2010</b> , 20, 203-217	1.9	29

43	Game dynamics in mendelian populations. <i>Biological Cybernetics</i> , <b>1982</b> , 43, 51-57	2.8	28
42	Social Control and the Social Contract: The Emergence of Sanctioning Systems for Collective Action. <i>Dynamic Games and Applications</i> , <b>2011</b> , 1, 149-171	1.1	26
41	The role of Mendelian genetics in strategic models on animal behaviour. <i>Journal of Theoretical Biology</i> , <b>1983</b> , 101, 19-38	2.3	26
40	On the Space of Invariant Measures for Hyperbolic Flows. <i>American Journal of Mathematics</i> , <b>1972</b> , 94, 31	1.2	26
39	The dynamics of public goods. <i>Discrete and Continuous Dynamical Systems - Series B</i> , <b>2004</b> , 4, 575-587	1.3	26
38	Equal Pay for All Prisoners. <i>American Mathematical Monthly</i> , <b>1997</b> , 104, 303-305	0.3	20
37	Game dynamics, mixed strategies, and gradient systems. <i>Theoretical Population Biology</i> , <b>1987</b> , 32, 114-126	2.2	20
36	Time averages for unpredictable orbits of deterministic systems. <i>Annals of Operations Research</i> , <b>1992</b> , 37, 217-228	3.2	19
35	Cooperation versus Competition. <i>Financial Analysts Journal</i> , <b>2000</b> , 56, 13-22	1.5	18
34	Invasion Dynamics of the Finitely Repeated Prisoner's Dilemma. <i>Games and Economic Behavior</i> , <b>1995</b> , 11, 364-390	1.1	16
33	Equal Pay for All Prisoners. <i>American Mathematical Monthly</i> , <b>1997</b> , 104, 303	0.3	15
32	A note on the evolution of sexual dimorphism. <i>Journal of Theoretical Biology</i> , <b>1982</b> , 94, 107-10	2.3	15
31	Social evolution leads to persistent corruption. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 13276-13281	11.5	14
30	A philosopher's mathematician: hans hahn and the vienna circle. <i>Mathematical Intelligencer</i> , <b>1995</b> , 17, 16-29	0.2	12
29	A maximum principle for frequency dependent selection. <i>Mathematical Biosciences</i> , <b>1987</b> , 84, 189-195	3.9	12
28	On mixing measures for axiom A diffeomorphisms. <i>Proceedings of the American Mathematical Society</i> , <b>1972</b> , 36, 497-497	0.8	12
27	Primer: altruism. <i>Current Biology</i> , <b>2002</b> , 12, R270-2	6.3	10
26	The evolution of sanctioning institutions: an experimental approach to the social contract. <i>Experimental Economics</i> , <b>2013</b> , 17, 285	2.1	8

25	On the connectedness of ergodic systems. <i>Manuscripta Mathematica</i> , <b>1977</b> , 22, 27-32	0.5	8
24	A Survey of Indirect Reciprocity <b>2007</b> , 21-49		8
23	A Survey of Replicator Equations. <i>Biomathematics</i> , <b>1986</b> , 88-104		8
22	Complex Adaptive Systems and the Evolution of Reciprocation. <i>Ecosystems</i> , <b>1998</b> , 1, 444-448	3.9	6
21	Exact thought in a demented time: Karl menger and his viennese mathematical colloquium. <i>Mathematical Intelligencer</i> , <b>2000</b> , 22, 34-45	0.2	5
20	Gradients for the evolution of bimatrix games. <i>Journal of Mathematical Biology</i> , <b>1987</b> , 25, 623-35	2	5
19	Permanence and viability. <i>Journal of Computational and Applied Mathematics</i> , <b>1988</b> , 22, 203-209	2.4	4
18	Normal and quasiregular points for automorphisms of the torus. <i>Mathematical Systems Theory</i> , <b>1974</b> , 8, 251-255		4
17	Public Good Games with Incentives: The Role of Reputation. <i>Springer Series in Game Theory</i> , <b>2009</b> , 85-103		3
16	What is life? The next fifty years. <i>Complexity</i> , <b>1996</b> , 2, 43-44	1.6	3
15	On the prevalence of zero entropy. <i>Israel Journal of Mathematics</i> , <b>1971</b> , 10, 281-288	0.8	3
14	On the time evolution of statistical states for Anosov systems. <i>Mathematische Zeitschrift</i> , <b>1974</b> , 138, 183-189	0.7	3
13	Kepler's conjecture: How some of the greatest minds in history helped solve one of the oldest math problems in the world. <i>Mathematical Intelligencer</i> , <b>2004</b> , 26, 66-67	0.2	2
12	On minimal centers of attraction and generic points.. <i>Journal Fur Die Reine Und Angewandte Mathematik</i> , <b>1977</b> , 1977, 72-79	1.2	2
11	Darwin and the Evolution of Human Cooperation. <i>The Frontiers Collection</i> , <b>2011</b> , 331-347	0.3	2
10	Toward ecoevolutionary dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	2
9	Gifts in Vienna. <i>Mathematical Intelligencer</i> , <b>2006</b> , 28, 44-55	0.2	1
8	Cooperation in Heterogeneous Populations. <i>Recent Research in Psychology</i> , <b>1994</b> , 223-235		1

- 7 A short tale of two cities: Otto schreier and the HamburgVienna connection. *Mathematical Intelligencer*, **2008**, 30, 27-35 0.2 0
- 6 Games Evolution Plays **1996**, 65-76
- 5 Three's company when seeking unanimity. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 17885-6 11.5
- 4 Propriétés globales et exceptionnelles des États statistiques de systèmes dynamiques stables. *Lecture Notes in Mathematics*, **1975**, 294-304 0.4
- 3 Automata for Repeated Games **2001**, 335-347
- 2 Automata and Inner States for Repeated Games **1998**, 131-139
- 1 Evolution theory system theory game theory Biocentric Modeling **2007**, 368-417