

# Jan Rychtář

## List of Publications by Year in descending order

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85  
papers

970  
citations

567281

15  
h-index

610901

24  
g-index

86  
all docs

86  
docs citations

86  
times ranked

577  
citing authors

#	ARTICLE	IF	CITATIONS
1	Game-Theoretical Models in Biology. , 0, , .		135
2	A game-theoretic model of Monkeypox to assess vaccination strategies. PeerJ, 2020, 8, e9272.	2.0	59
3	Evolutionary Games on Star Graphs Under Various Updating Rules. Dynamic Games and Applications, 2011, 1, 386-407.	1.9	51
4	Evolutionary dynamics on small-order graphs. Journal of Interdisciplinary Mathematics, 2009, 12, 129-140.	0.7	46
5	Evolutionary graph theory revisited: when is an evolutionary process equivalent to the Moran process?. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150334.	2.1	46
6	A general framework for analysing multiplayer games in networks using territorial interactions as a case study. Journal of Theoretical Biology, 2012, 302, 70-80.	1.7	37
7	A game-theoretic approach to valuating toxoplasmosis vaccination strategies. Theoretical Population Biology, 2015, 105, 33-38.	1.1	30
8	A game-theoretic model of kleptoparasitic behavior in polymorphic populations. Journal of Theoretical Biology, 2008, 255, 81-91.	1.7	28
9	Variance-based selection may explain general mating patterns in social insects. Biology Letters, 2008, 4, 270-273.	2.3	25
10	The Evolution of a Kleptoparasitic System under Adaptive Dynamics. Journal of Mathematical Biology, 2007, 54, 151-177.	1.9	22
11	A Game-Theoretic Model of Cholera with Optimal Personal Protection Strategies. Bulletin of Mathematical Biology, 2018, 80, 2580-2599.	1.9	22
12	Generalized Social Dilemmas: The Evolution of Cooperation in Populations with Variable Group Size. Bulletin of Mathematical Biology, 2019, 81, 4643-4674.	1.9	22
13	Overexpression of the Auxin Binding PROTEIN1 Modulates PIN-Dependent Auxin Transport in Tobacco Cells. PLoS ONE, 2013, 8, e70050.	2.5	19
14	Optimal Repellent Usage to Combat Dengue Fever. Bulletin of Mathematical Biology, 2016, 78, 916-922.	1.9	17
15	A study of the dynamics of multi-player games on small networks using territorial interactions. Journal of Mathematical Biology, 2015, 71, 1551-1574.	1.9	16
16	Game-Theoretical Model of Retroactive Hepatitis B Vaccination in China. Bulletin of Mathematical Biology, 2020, 82, 80.	1.9	16
17	A game-theoretical analysis of poliomyelitis vaccination. Journal of Theoretical Biology, 2020, 499, 110298.	1.7	16
18	Characterization of transmembrane auxin transport in Arabidopsis suspension-cultured cells. Journal of Plant Physiology, 2014, 171, 429-437.	3.5	15

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19	High endemic levels of typhoid fever in rural areas of Ghana may stem from optimal voluntary vaccination behaviour. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020, 476, 20200354.	2.1	15
20	The Game-Theoretical Model of Using Insecticide-Treated Bed-Nets to Fight Malaria. <i>Applied Mathematics</i> , 2016, 07, 852-860.	0.4	15
21	The stochastic modelling of kleptoparasitism using a Markov process. <i>Journal of Theoretical Biology</i> , 2010, 264, 266-272.	1.7	14
22	Kleptoparasitic Meleesâ€™Modelling Food Stealing Featuring Contests with Multiple Individuals. <i>Bulletin of Mathematical Biology</i> , 2011, 73, 683-699.	1.9	13
23	Evolutionary dynamics and the evolution of multiplayer cooperation in a subdivided population. <i>Journal of Theoretical Biology</i> , 2017, 429, 105-115.	1.7	13
24	A game theoretical model of kleptoparasitism with incomplete information. <i>Journal of Mathematical Biology</i> , 2009, 59, 631-649.	1.9	12
25	A structured population model suggests that long life and post-reproductive lifespan promote the evolution of cooperation. <i>Journal of Theoretical Biology</i> , 2015, 369, 85-94.	1.7	12
26	The signalling game between plants and pollinators. <i>Scientific Reports</i> , 2018, 8, 6686.	3.3	12
27	Resource competition amid overlapping territories: The territorial raider model applied to multi-group interactions. <i>Journal of Theoretical Biology</i> , 2017, 412, 100-106.	1.7	11
28	Analysing territorial models on graphs. <i>Involve</i> , 2014, 7, 129-149.	0.2	11
29	Estimating the sample variance from the sample size and range. <i>Statistics in Medicine</i> , 2020, 39, 4667-4686.	1.6	10
30	Optimal Voluntary Vaccination of Adults and Adolescents Can Help Eradicate Hepatitis B in China. <i>Games</i> , 2021, 12, 82.	0.6	10
31	Effects of causal networks on the structure and stability of resource allocation trait correlations. <i>Journal of Theoretical Biology</i> , 2012, 293, 1-14.	1.7	8
32	A voluntary use of insecticide-treated cattle can eliminate African sleeping sickness. <i>Letters in Biomathematics</i> , 2015, 2, 91-101.	0.1	8
33	The screening game in plantâ€™pollinator interactions. <i>Evolutionary Ecology</i> , 2015, 29, 479-487.	1.2	8
34	Mathematical modelling of the use of insecticide-treated nets for elimination of visceral leishmaniasis in Bihar, India. <i>Royal Society Open Science</i> , 2021, 8, 201960.	2.4	8
35	THE EVOLUTION OF COOPERATION IN 1-DIMENSIONAL MOBILE POPULATIONS. <i>Far East Journal of Applied Mathematics</i> , 2016, 95, 63-88.	0.1	8
36	Evolutionary Games with Sequential Decisions and Dollar Auctions. <i>Dynamic Games and Applications</i> , 2018, 8, 211-231.	1.9	7

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37	A temporal model of territorial defence with antagonistic interactions. <i>Theoretical Population Biology</i> , 2020, 134, 15-35.	1.1	7
38	A voluntary use of insecticide treated nets can stop the vector transmission of Chagas disease. <i>PLoS Neglected Tropical Diseases</i> , 2020, 14, e0008833.	3.0	7
39	A game theoretic model of kleptoparasitism with strategic arrivals and departures of beetles at dung pats. <i>Journal of Theoretical Biology</i> , 2012, 300, 292-298.	1.7	6
40	The effect of network topology on optimal exploration strategies and the evolution of cooperation in a mobile population. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019, 475, 20190399.	2.1	6
41	Modelling Evolution in Structured Populations Involving Multiplayer Interactions. <i>Dynamic Games and Applications</i> , 2021, 11, 270-293.	1.9	6
42	The Effect of Information on Payoff in Kleptoparasitic Interactions. <i>Springer Proceedings in Mathematics and Statistics</i> , 2013, , 125-134.	0.2	6
43	Pointwise uniformly rotund norms. <i>Proceedings of the American Mathematical Society</i> , 2005, 133, 2259-2266.	0.8	6
44	A Voluntary Use of Insecticide-Treated Cattle can Eliminate African Sleeping Sickness. <i>Letters in Biomathematics</i> , 2015, 2, .	0.1	6
45	Evolving multiplayer networks: Modelling the evolution of cooperation in a mobile population. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2018, 23, 1975-2004.	0.9	6
46	Estimation of standard deviations and inverse variance weights from an observed range. <i>Statistics in Medicine</i> , 2022, 41, 242-257.	1.6	6
47	The effect of fight cost structure on fighting behaviour. <i>Journal of Mathematical Biology</i> , 2015, 71, 979-996.	1.9	5
48	Costly signalling theory and dishonest signalling. <i>Theoretical Ecology</i> , 2020, 13, 85-92.	1.0	5
49	Game-Theoretical Model of the Voluntary Use of Insect Repellents to Prevent Zika Fever. <i>Dynamic Games and Applications</i> , 2022, 12, 133-146.	1.9	5
50	Unified approach to optimal estimation of mean and standard deviation from sample summaries. <i>Statistical Methods in Medical Research</i> , 2022, 31, 2087-2103.	1.5	5
51	On uniformly Gâteaux smooth norms and normal structure. <i>Proceedings of the American Mathematical Society</i> , 2007, 135, 1511-1515.	0.8	4
52	Effect of Density and Extra Dung on Brood Parasitism in the Dung Beetle, <i>Onthophagus Taurus</i> . <i>Journal of Insect Behavior</i> , 2013, 26, 253-259.	0.7	4
53	Nonlinear and Multiplayer Evolutionary Games. , 2016, , 95-115.		4
54	A continuous ideal free distribution approach to the dynamics of selfish, cooperative and kleptoparasitic populations. <i>Royal Society Open Science</i> , 2016, 3, 160788.	2.4	4

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55	Models of kleptoparasitism on networks: the effect of population structure on food stealing behaviour. <i>Journal of Mathematical Biology</i> , 2018, 76, 1465-1488.	1.9	4
56	Models and measures of animal aggregation and dispersal. <i>Journal of Theoretical Biology</i> , 2020, 484, 110002.	1.7	4
57	Moran process and Wright-Fisher process favor low variability. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2021, 26, 3491.	0.9	4
58	A mathematical model of Guinea worm disease in Chad with fish as intermediate transport hosts. <i>Journal of Theoretical Biology</i> , 2021, 521, 110683.	1.7	4
59	Optimal aggression in kleptoparasitic interactions. <i>Involve</i> , 2017, 10, 735-747.	0.2	4
60	Asymmetric Games in Monomorphic and Polymorphic Populations. <i>Dynamic Games and Applications</i> , 2014, 4, 391-406.	1.9	3
61	A model of food stealing with asymmetric information. <i>Ecological Complexity</i> , 2016, 26, 137-142.	2.9	3
62	The effect of fight cost structure on fighting behaviour involving simultaneous decisions and variable investment levels. <i>Journal of Mathematical Biology</i> , 2018, 76, 457-482.	1.9	3
63	Ideal Cost-Free Distributions in Structured Populations for General Payoff Functions. <i>Dynamic Games and Applications</i> , 2018, 8, 79-92.	1.9	3
64	Renorming of $C(K)$ spaces. <i>Proceedings of the American Mathematical Society</i> , 2003, 131, 2063-2070.	0.8	2
65	Waste Recycling Can Promote Group Living: A cockroach case study. <i>Letters in Biomathematics</i> , 2014, 1, 17-22.	0.1	2
66	The Territorial Raider game and graph derangements. <i>Discrete Applied Mathematics</i> , 2016, 213, 13-16.	0.9	2
67	Cooperation in finite populations: Being alone helps. <i>Journal of Interdisciplinary Mathematics</i> , 2016, 19, 799-809.	0.7	2
68	Dishonest Signalling in a Variant of Pygmalion Game. <i>Dynamic Games and Applications</i> , 2020, 10, 719-731.	1.9	2
69	Owner's "Intruder contests with correlated resource values. <i>International Journal of Biomathematics</i> , 2021, 14, 2150021.	2.9	2
70	On Gateaux Differentiability of Convex Functions in WCG Spaces. <i>Canadian Mathematical Bulletin</i> , 2005, 48, 455-459.	0.5	1
71	Cooperative behaviour in theory and practice: leading undergraduate research in behaviour mathematical biology. <i>Letters in Biomathematics</i> , 2015, 2, 29-45.	0.1	1
72	The evolution of cooperation is affected by the persistence of fitness effects, the neighborhood size and their interaction. <i>Letters in Biomathematics</i> , 2015, 2, 67-78.	0.1	1

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73	Introduction to the Special Issue on Perspectives and Experiences on Mentoring Undergraduate Students in Research: Part I. Primus, 2017, 27, 315-319.	0.5	1
74	Introduction to the Special Issue on Perspectives and Experiences on Mentoring Undergraduate Students in Research: Part II. Primus, 2017, 27, 437-441.	0.5	1
75	Kleptoparasitic interactions modeling varying owner and intruder hunger awareness. Theoretical Population Biology, 2020, 136, 31-40.	1.1	1
76	A mathematical model of kin selection in floral displays. Journal of Theoretical Biology, 2021, 509, 110470.	1.7	1
77	Owner-Intruder contests with information asymmetry. Mathematical Modelling of Natural Phenomena, 2021, 16, 17.	2.4	1
78	Quasi-neutral evolution in populations under small demographic fluctuations. Journal of Theoretical Biology, 2022, 538, 111040.	1.7	1
79	An ODE model of yaws elimination in Lihir Island, Papua New Guinea. PeerJ, 2022, 10, e13018.	2.0	1
80	Renorming James tree space. Transactions of the American Mathematical Society, 2005, 357, 3775-3788.	0.9	0
81	Invariant subspaces of $X^{**}$ under the action of biconjugates. Czechoslovak Mathematical Journal, 2006, 56, 61-77.	0.3	0
82	A Three-Player Singled Out Game. Journal of Statistical Theory and Practice, 2015, 9, 882-895.	0.5	0
83	On Weak* Kadec-Klee Norms. Canadian Mathematical Bulletin, 2007, 50, 610-618.	0.5	0
84	A Spatially Organized Population Model to Study the Evolution of Cooperation in Species with Discrete Life-History Stages. Springer Proceedings in Mathematics and Statistics, 2013, , 147-154.	0.2	0
85	Accurate approximation of the expected value, standard deviation, and probability density function of extreme order statistics from Gaussian samples. Communications in Statistics Part B: Simulation and Computation, 2024, 53, 869-878.	1.2	0