## Chris T Bauch

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/581300/publications.pdf

Version: 2024-02-01

87888 7,245 151 38 citations h-index papers

78 g-index 180 180 180 6194 docs citations times ranked citing authors all docs

66911

#	Article	IF	CITATIONS
1	Impact of co-evolution of negative vaccine-related information, vaccination behavior and epidemic spreading in multilayer networks. Communications in Nonlinear Science and Numerical Simulation, 2022, 109, 106312.	3.3	21
2	Local Overfishing Patterns Have Regional Effects on Health of Coral, and Economic Transitions Can Promote Its Recovery. Bulletin of Mathematical Biology, 2022, 84, 46.	1.9	3
3	COVID-19 vaccine perceptions in the initial phases of US vaccine roll-out: an observational study on reddit. BMC Public Health, 2022, 22, 446.	2.9	15
4	Estimating COVID-19 cases and deaths prevented by non-pharmaceutical interventions, and the impact of individual actions: A retrospective model-based analysis. Epidemics, 2022, 39, 100557.	3.0	9
5	Stochasticity-induced persistence in coupled social-ecological systems. Journal of Theoretical Biology, 2022, 542, 111088.	1.7	2
6	Modelling coupled human–environment complexity for the future of the biosphere: strengths, gaps and promising directions. Philosophical Transactions of the Royal Society B: Biological Sciences, 2022, 377, .	4.0	11
7	Estimating the COVID-19 R number: a bargain with the devil?. Lancet Infectious Diseases, The, 2021, 21, 151-153.	9.1	20
8	Best response dynamics improve sustainability and equity outcomes in common-pool resources problems, compared to imitation dynamics. Journal of Theoretical Biology, 2021, 509, 110476.	1.7	9
9	Model-based projections for COVID-19 outbreak size and student-days lost to closure in Ontario childcare centres and primary schools. Scientific Reports, 2021, 11, 6402.	3.3	28
10	A well-timed shift from local to global agreements accelerates climate change mitigation. Nature Communications, 2021, 12, 2908.	12.8	2
11	Ideas and perspectives: Biogeochemistry – some key foci for the future. Biogeosciences, 2021, 18, 3005-3013.	3.3	8
12	Fire mitigates bark beetle outbreaks in serotinous forests. Theoretical Ecology, 2021, 14, 611-621.	1.0	5
13	Projected impact of a plant-derived vaccine on the burden of seasonal influenza in Canada. Human Vaccines and Immunotherapeutics, 2021, 17, 3643-3651.	3.3	1
14	Targeted pandemic containment through identifying local contact network bottlenecks. PLoS Computational Biology, 2021, 17, e1009351.	3.2	3
15	Prioritising COVID-19 vaccination in changing social and epidemiological landscapes: a mathematical modelling study. Lancet Infectious Diseases, The, 2021, 21, 1097-1106.	9.1	142
16	A nested model for tuberculosis: Combining within-host and between-host processes in a single framework. International Journal of Modern Physics C, 2021, 32, .	1.7	2
17	Coupled social and land use dynamics affect dietary choice and agricultural land-use extent. Communications Earth & Environment, 2021, 2, .	6.8	2
18	Deep learning for early warning signals of tipping points. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	84

#	Article	IF	CITATIONS
19	"Hot-spotting―to improve vaccine allocation by harnessing digital contact tracing technology: An application of percolation theory. PLoS ONE, 2021, 16, e0256889.	2.5	1
20	When conflicts get heated, so does the planet: coupled social-climate dynamics under inequality. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20211357.	2.6	5
21	Network structural metrics as early warning signals of widespread vaccine refusal in social-epidemiological networks. Journal of Theoretical Biology, 2021, 531, 110881.	1.7	1
22	Interventions to Mitigate COVID-19 Misinformation: A Systematic Review and Meta-Analysis. Journal of Health Communication, 2021, 26, 846-857.	2.4	31
23	Debates about vaccines and climate change on social media networks: a study in contrasts. Humanities and Social Sciences Communications, $2021, 8, .$	2.9	6
24	Cooperation in a generalized age-structured spatial game. Journal of Theoretical Biology, 2020, 484, 109995.	1.7	7
25	Conditions for a Second Wave of COVID-19 Due to Interactions Between Disease Dynamics and Social Processes. Frontiers in Physics, 2020, 8, .	2.1	43
26	Go big or go home: A model-based assessment of general strategies to slow the spread of forest pests via infested firewood. PLoS ONE, 2020, 15, e0238979.	2.5	7
27	Spatial early warning signals of social and epidemiological tipping points in a coupled behaviour-disease network. Scientific Reports, 2020, 10, 7611.	3.3	12
28	Communicating sentiment and outlook reverses inaction against collective risks. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17650-17655.	7.1	68
29	Prosocial polio vaccination in Israel. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13138-13144.	7.1	16
30	Detecting and distinguishing tipping points using spectral early warning signals. Journal of the Royal Society Interface, 2020, 17, 20200482.	3.4	20
31	Local lockdowns outperform global lockdown on the far side of the COVID-19 epidemic curve. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 24575-24580.	7.1	92
32	Spatial structure in protected forestâ€grassland mosaics: Exploring futures under climate change. Global Change Biology, 2020, 26, 6097-6115.	9.5	6
33	Algorithmic discovery of dynamic models from infectious disease data. Scientific Reports, 2020, 10, 7061.	3.3	30
34	The Impact of Pre-exposure Prophylaxis for Human Immunodeficiency Virus on Gonorrhea Prevalence. Bulletin of Mathematical Biology, 2020, 82, 85.	1.9	4
35	COVID-19: when should quarantine be enforced?. Lancet Infectious Diseases, The, 2020, 20, 994-995.	9.1	9
36	Title is missing!. , 2020, 15, e0238979.		0

#	Article	IF	Citations
37	Title is missing!. , 2020, 15, e0238979.		0
38	Title is missing!. , 2020, 15, e0238979.		0
39	Title is missing!. , 2020, 15, e0238979.		0
40	Title is missing!. , 2020, 15, e0238979.		0
41	Title is missing!. , 2020, 15, e0238979.		0
42	Title is missing!. , 2020, 15, e0238979.		0
43	Title is missing!. , 2020, 15, e0238979.		0
44	Charting pathways to climate change mitigation in a coupled socio-climate model. PLoS Computational Biology, 2019, 15, e1007000.	<b>3.</b> 2	46
45	Socio-ecological mechanisms for persistence of native Australian grasses under pressure from nitrogen runoff and invasive species. Ecological Modelling, 2019, 413, 108830.	2.5	2
46	Modelling microbial infection to address global health challenges. Nature Microbiology, 2019, 4, 1612-1619.	13.3	34
47	The impact of truncation selection and diffusion on cooperation in spatial games. Journal of Theoretical Biology, 2019, 466, 64-83.	1.7	4
48	The impact of rare but severe vaccine adverse events on behaviour-disease dynamics: a network model. Scientific Reports, 2019, 9, 7164.	3.3	29
49	A local optimization framework for addressing conservation conflicts in mosaic ecosystems. PLoS ONE, 2019, 14, e0217812.	2.5	2
50	Interconnections Accelerate Collapse in a Socio-Ecological Metapopulation. Sustainability, 2019, 11, 1852.	3.2	8
51	Convergence of socio-ecological dynamics in disparate ecological systems under strong coupling to human social systems. Theoretical Ecology, 2019, 12, 285-296.	1.0	9
52	Parameterizing a dynamic influenza model using longitudinal versus age-stratified case notifications yields different predictions of vaccine impacts. Mathematical Biosciences and Engineering, 2019, 16, 3753-3770.	1.9	2
53	Modelling science trustworthiness under publish or perish pressure. Royal Society Open Science, 2018, 5, 171511.	2.4	113
54	Spatial correlation as an early warning signal of regime shifts in a multiplex disease-behaviour network. Journal of Theoretical Biology, 2018, 448, 17-25.	1.7	20

#	Article	IF	Citations
55	Socio-ecological dynamics of Caribbean coral reef ecosystems and conservation opinion propagation. Scientific Reports, 2018, 8, 2597.	3.3	12
56	Solving the patient zero inverse problem by using generalized simulated annealing. Physica A: Statistical Mechanics and Its Applications, 2018, 490, 1513-1521.	2.6	8
57	Strategic decision making about travel during disease outbreaks: a game theoretical approach. Journal of the Royal Society Interface, 2018, 15, 20180515.	3.4	24
58	Global land use implications of dietary trends. PLoS ONE, 2018, 13, e0200781.	2.5	26
59	The influence of social behaviour on competition between virulent pathogen strains. Journal of Theoretical Biology, 2018, 455, 47-53.	1.7	21
60	The Environmental Kuznets Curve Fails in a Globalized Socio-Ecological Metapopulation: A Sustainability Game Theory Approach. Handbook of Statistics, 2018, 39, 315-341.	0.6	7
61	Elements of indigenous socio-ecological knowledge show resilience despite ecosystem changes in the forest-grassland mosaics of the Nilgiri Hills, India. Palgrave Communications, 2018, 4, .	4.7	9
62	Dynamics of the Global Wheat Trade Network and Resilience to Shocks. Scientific Reports, 2017, 7, 7177.	3.3	57
63	Competition between injunctive social norms and conservation priorities gives rise to complex dynamics in a model of forest growth and opinion dynamics. Journal of Theoretical Biology, 2017, 432, 132-140.	1.7	18
64	Critical dynamics in population vaccinating behavior. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13762-13767.	7.1	57
65	Spatially-implicit modelling of disease-behaviour interactions in the context of non-pharmaceutical interventions. Mathematical Biosciences and Engineering, 2017, 15, 461-483.	1.9	0
66	Alternative stable states and the sustainability of forests, grasslands, and agriculture. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14552-14559.	7.1	50
67	Human–environment interactions in population and ecosystem health. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14502-14506.	7.1	83
68	National- and state-level impact and cost-effectiveness of nonavalent HPV vaccination in the United States. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5107-5112.	7.1	46
69	Emergence and spread of drug resistant influenza: A two-population game theoretical model. Infectious Disease Modelling, 2016, 1, 40-51.	1.9	6
70	Statistical physics of vaccination. Physics Reports, 2016, 664, 1-113.	25.6	734
71	Disease dynamics and costly punishment can foster socially imposed monogamy. Nature Communications, 2016, 7, 11219.	12.8	31
72	Early warning signals of regime shifts in coupled human–environment systems. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14560-14567.	7.1	112

#	Article	IF	CITATIONS
73	Truncation selection and payoff distributions applied to the replicator equation. Journal of Theoretical Biology, 2016, 404, 383-390.	1.7	5
74	Landowner perceptions of the value of natural forest and natural grassland in a mosaic ecosystem in southern Brazil. Sustainability Science, 2016, 11, 321-330.	4.9	21
75	The impacts of simultaneous disease intervention decisions on epidemic outcomes. Journal of Theoretical Biology, 2016, 395, 1-10.	1.7	16
76	Coupling fishery dynamics, human health and social learning in a model of fish-borne pollution exposure. Sustainability Science, 2016, 11, 179-192.	4.9	5
77	Multiplayer games and HIV transmission via casual encounters. Mathematical Biosciences and Engineering, 2016, 13, 1-1.	1.9	10
78	Spatial coupled disease–behavior framework as a dynamic and adaptive system. Physics of Life Reviews, 2015, 15, 57-60.	2.8	6
79	Sexual behavior, risk perception and HIV transmission can respond to HIV antiviral drugs and vaccines through multiple pathways. Scientific Reports, 2015, 5, 15411.	3.3	16
80	Bounded rationality alters the dynamics of paediatric immunization acceptance. Scientific Reports, 2015, 5, 10724.	3.3	18
81	Coupled disease–behavior dynamics on complex networks: A review. Physics of Life Reviews, 2015, 15, 1-29.	2.8	385
82	The impact of aggregating serogroups in dynamic models of Neisseria meningitidis transmission. BMC Infectious Diseases, 2015, 15, 300.	2.9	7
83	Unifying perspectives on cooperation under social viscosity. Physics of Life Reviews, 2015, 14, 34-36.	2.8	1
84	Nine challenges in incorporating the dynamics of behaviour in infectious diseases models. Epidemics, 2015, 10, 21-25.	3.0	174
85	Role of word-of-mouth for programs of voluntary vaccination: A game-theoretic approach. Mathematical Biosciences, 2015, 269, 130-134.	1.9	23
86	Could the human papillomavirus vaccines drive virulence evolution?. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20141069.	2.6	29
87	Evaluation of serogroup C and ACWY meningococcal vaccine programs: Projected impact on disease burden according to a stochastic two-strain dynamic model. Vaccine, 2015, 33, 268-275.	3.8	17
88	Disease Interventions Can Interfere with One Another through Disease-Behaviour Interactions. PLoS Computational Biology, 2015, 11, e1004291.	3.2	13
89	Coupled Human-Environment Dynamics of Forest Pest Spread and Control in a Multi-Patch, Stochastic Setting. PLoS ONE, 2015, 10, e0139353.	2.5	6
90	Impacts of constrained culling and vaccination on control of foot and mouth disease in near-endemic settings: A pair approximation model. Epidemics, 2014, 9, 18-30.	3.0	13

#	Article	IF	Citations
91	An antibiotic protocol to minimize emergence of drug-resistant tuberculosis. Physica A: Statistical Mechanics and Its Applications, 2014, 400, 80-92.	2.6	3
92	The influence of social norms on the dynamics of vaccinating behaviour for paediatric infectious diseases. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20133172.	2.6	91
93	Examining Ontario's universal influenza immunization program with a multi-strain dynamic model. Vaccine, 2014, 32, 5098-5117.	3.8	9
94	Revising ecological assumptions about Human papillomavirus interactions and type replacement. Journal of Theoretical Biology, 2014, 350, 98-109.	1.7	37
95	Dynamics and control of foot-and-mouth disease in endemic countries: A pair approximation model. Journal of Theoretical Biology, 2014, 357, 150-159.	1.7	14
96	Modelling Interactions between Forest Pest Invasions and Human Decisions Regarding Firewood Transport Restrictions. PLoS ONE, 2014, 9, e90511.	2.5	41
97	Coevolution of risk perception, sexual behaviour, and HIV transmission in an agent-based model. Journal of Theoretical Biology, 2013, 337, 125-132.	1.7	11
98	Assessing the pandemic potential of MERS-CoV. Lancet, The, 2013, 382, 662-664.	13.7	68
99	Modeling a Switch from Trivalent to Quadrivalent Influenza Vaccine in Canada and the United Kingdom. Value in Health, 2013, 16, A586.	0.3	0
100	Behavioral Epidemiology of Infectious Diseases: An Overview. , 2013, , 1-19.		20
101	Policy Resistance Undermines Superspreader Vaccination Strategies for Influenza. PLoS Computational Biology, 2013, 9, e1002945.	3.2	30
102	The impact of human-environment interactions on the stability of forest-grassland mosaic ecosystems. Scientific Reports, 2013, 3, 2689.	3.3	64
103	Social Factors in Epidemiology. Science, 2013, 342, 47-49.	12.6	188
104	Carrot or Stick? Modelling How Landowner Behavioural Responses Can Cause Incentive-Based Forest Governance to Backfire. PLoS ONE, 2013, 8, e77735.	2.5	24
105	Outlook on a Worldwide Forest Transition. PLoS ONE, 2013, 8, e75890.	2.5	37
106	The Impact of Imitation on Vaccination Behavior in Social Contact Networks. PLoS Computational Biology, 2012, 8, e1002469.	3.2	102
107	Evolutionary Game Theory and Social Learning Can Determine How Vaccine Scares Unfold. PLoS Computational Biology, 2012, 8, e1002452.	3.2	158
108	Mathematical models of the interplay between individual vaccinating decisions and disease dynamics: a need for closer integration of models and data. Human Vaccines and Immunotherapeutics, 2012, 8, 842-844.	3.3	13

#	Article	IF	CITATIONS
109	CAN CULLING TO PREVENT MONKEYPOX INFECTION BE COUNTER-PRODUCTIVE? SCENARIOS FROM A THEORETICAL MODEL. Journal of Biological Systems, 2012, 20, 259-283.	1.4	13
110	EXPLORATION OF THE PARAMETER SPACE IN AN AGENT-BASED MODEL OF TUBERCULOSIS SPREAD: EMERGENCE OF DRUG RESISTANCE IN DEVELOPING VS DEVELOPED COUNTRIES. International Journal of Modern Physics C, 2012, 23, 1250046.	1.7	8
111	Use of a Catalytic Model to Estimate Hepatitis A Incidence in a Low-Endemicity Country. Medical Decision Making, 2012, 32, 167-175.	2.4	5
112	Outcome Inelasticity and Outcome Variability in Behaviour-Incidence Models: An Example from an SEIR Infection on a Dynamic Network. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-11.	1.3	10
113	Time for change? An economic evaluation of integrated cervical screening and HPV immunization programs in Canada. Vaccine, 2012, 30, 425-435.	3.8	19
114	The impact of personal experiences with infection and vaccination on behaviour–incidence dynamics of seasonal influenza. Epidemics, 2012, 4, 139-151.	3.0	26
115	Food Webs in the Human Body: Linking Ecological Theory to Viral Dynamics. PLoS ONE, 2012, 7, e48812.	2.5	8
116	Dynamics of an Infectious Disease Where Media Coverage Influences Transmission. , 2012, 2012, 1-10.		69
117	Agent-based modelling of clonal plant propagation across space: Recapturing fairy rings, power laws and other phenomena. Ecological Informatics, 2011, 6, 127-135.	5.2	14
118	"Wait and see―vaccinating behaviour during a pandemic: A game theoretic analysis. Vaccine, 2011, 29, 5519-5525.	3.8	53
119	Impact of Imitation Processes on the Effectiveness ofÂRing Vaccination. Bulletin of Mathematical Biology, 2011, 73, 2748-2772.	1.9	9
120	The impact of media coverage on the transmission dynamics of human influenza. BMC Public Health, 2011, 11, S5.	2.9	163
121	An agent-based computational model of the spread of tuberculosis. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P05003.	2.3	17
122	Global Eradication of Measles: An Epidemiologic and Economic Evaluation. Journal of Infectious Diseases, 2011, 204, S98-S106.	4.0	71
123	Erratic Flu Vaccination Emerges from Short-Sighted Behavior in Contact Networks. PLoS Computational Biology, 2011, 7, e1001062.	3.2	62
124	Can Interactions between Timing of Vaccine-Altered Influenza Pandemic Waves and Seasonality in Influenza Complications Lead to More Severe Outcomes?. PLoS ONE, 2011, 6, e23580.	2.5	2
125	Modelling invasibility in endogenously oscillating tree populations: timing of invasion matters. Biological Invasions, 2010, 12, 219-231.	2.4	7
126	Stray dog population demographics in Jodhpur, India following a population control/rabies vaccination program. Preventive Veterinary Medicine, 2010, 97, 51-57.	1.9	132

#	Article	IF	CITATIONS
127	A population biological approach to the collective dynamics of countries undergoing demographic transition. Journal of Theoretical Biology, 2010, 265, 167-176.	1.7	1
128	A game dynamic model for delayer strategies in vaccinating behaviour for pediatric infectious diseases. Journal of Theoretical Biology, 2010, 267, 276-282.	1.7	46
129	When Do Sexual Partnerships Need to Be Accounted for in Transmission Models of Human Papillomavirus?. International Journal of Environmental Research and Public Health, 2010, 7, 635-650.	2.6	14
130	Economic Appraisal of Ontario's Universal Influenza Immunization Program: A Cost-Utility Analysis. PLoS Medicine, 2010, 7, e1000256.	8.4	71
131	Adherence to cervical screening in the era of human papillomavirus vaccination: how low is too low?. Lancet Infectious Diseases, The, 2010, 10, 133-137.	9.1	25
132	Cervical cancer incidence can increase despite HPV vaccination – Author's reply. Lancet Infectious Diseases, The, 2010, 10, 595.	9.1	0
133	Rapid Emergence of Free-Riding Behavior in New Pediatric Immunization Programs. PLoS ONE, 2010, 5, e12594.	2.5	27
134	Incorporating Herd Immunity Effects into Cohort Models of Vaccine Cost-Effectiveness. Medical Decision Making, 2009, 29, 557-569.	2.4	29
135	Modelling mitigation strategies for pandemic (H1N1) 2009. Cmaj, 2009, 181, 673-680.	2.0	94
136	Social Contact Networks and Disease Eradicability under Voluntary Vaccination. PLoS Computational Biology, 2009, 5, e1000280.	3.2	129
137	A simulation analysis to characterize the dynamics of vaccinating behaviour on contact networks. BMC Infectious Diseases, 2009, 9, 77.	2.9	42
138	Interactions between climate change, competition, dispersal, and disturbances in a tree migration model. Theoretical Ecology, 2008, 1, 209-220.	1.0	28
139	Wealth as a source of density dependence in human population growth. Oikos, 2008, 117, 1824-1832.	2.7	13
140	Symmetric competition causes population oscillations in an individual-based model of forest dynamics. Ecological Modelling, 2008, 211, 491-500.	2.5	38
141	The effects of endogenous ecological memory on population stability and resilience in a variable environment. Ecological Modelling, 2008, 212, 334-341.	2.5	21
142	Dynamics of Vaccination Strategies via Projected Dynamical Systems. Bulletin of Mathematical Biology, 2007, 69, 1453-1476.	1.9	33
143	Evolving public perceptions and stability in vaccine uptake. Mathematical Biosciences, 2006, 204, 185-198.	1.9	184
144	Imitation dynamics predict vaccinating behaviour. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 1669-1675.	2.6	343

#	ARTICLE	IF	CITATION
145	Dynamically Modeling SARS and Other Newly Emerging Respiratory Illnesses. Epidemiology, 2005, 16, 791-801.	2.7	226
146	The spread of infectious diseases in spatially structured populations: An invasory pair approximation. Mathematical Biosciences, 2005, 198, 217-237.	1.9	65
147	Vaccination and the theory of games. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13391-13394.	7.1	596
148	Using network models to approximate spatial point-process models. Mathematical Biosciences, 2003, 184, 101-114.	1.9	14
149	Transients and attractors in epidemics. Proceedings of the Royal Society B: Biological Sciences, 2003, 270, 1573-1578.	2.6	117
150	Group interest versus self-interest in smallpox vaccination policy. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 10564-10567.	7.1	327
151	A versatile ODE approximation to a network model for the spread of sexually transmitted diseases. Journal of Mathematical Biology, 2002, 45, 375-395.	1.9	34