Alex James

List of Publications by Year
in descending order

65 papers	2,583 citations	394421 19 h-index	214800 47 g-index
83 all docs	83 docs citations	83 times ranked	3446 citing authors

#	Article	IF	Citations
1	Scaling laws of marine predator search behaviour. Nature, 2008, 451, 1098-1102.	27.8	852
2	Disentangling nestedness from models of ecological complexity. Nature, 2012, 487, 227-230.	27.8	195
3	Of mast and mean: differentialâ€temperature cue makes mast seeding insensitive to climate change. Ecology Letters, 2013, 16, 90-98.	6.4	195
4	Assessing LÃ©vy walks as models of animal foraging. Journal of the Royal Society Interface, 2011, 8, 1233-1247.	3.4	139
5	Optimal foraging: LÃ©vy pattern or process?. Journal of the Royal Society Interface, 2008, 5, 1077-1086.	3.4	107
6	Sizeâ€spectra dynamics from stochastic predation and growth of individuals. Ecology, 2009, 90, 802-811.	3.2	98
7	Optimizing the encounter rate in biological interactions: Ballistic versus LÃ©vy versus Brownian strategies. Physical Review E, 2008, 78, 051128.	2.1	67
8	An event-based model of superspreading in epidemics. Proceedings of the Royal Society B: Biological Sciences, 2007, 274, 741-747.	2.6	64
9	Worldwide border interceptions provide a window into humanâ€mediated global insect movement. Ecological Applications, 2021, 31, e02412.	3.8	53
10	The relationship between plankton blooms, the hatching of fish larvae, and recruitment. Ecological Modelling, 2003, 160, 77-90.	2.5	42
11	Quantifying the effects of individual and environmental variability in fish recruitment. Fisheries Oceanography, 2005, 14, 156-160.	1.7	37
12	Spatial moment dynamics for collective cell movement incorporating a neighbour-dependent directional bias. Journal of the Royal Society Interface, 2015, 12, 20150228.	3.4	35
13	Gender and societies: a grassroots approach to women in science. Royal Society Open Science, 2019, 6, 190633.	2.4	33
14	Constructing Random Matrices to Represent Real Ecosystems. American Naturalist, 2015, 185, 680-692.	2.1	31
15	Collective Cell Behaviour with Neighbour-Dependent Proliferation, Death and Directional Bias. Bulletin of Mathematical Biology, 2016, 78, 2277-2301.	1.9	30
16	Efficient or Inaccurate? Analytical and Numerical Modelling of Random Search Strategies. Bulletin of Mathematical Biology, 2010, 72, 896-913.	1.9	29
17	Successful contact tracing systems for COVID-19 rely on effective quarantine and isolation. PLoS ONE, 2021, 16, e0252499.	2.5	25
18	Estimated inequities in COVID-19 infection fatality rates by ethnicity for Aotearoa New Zealand. New Zealand Medical Journal, 2020, 133, 28-39.	0.5	25

#	Article	IF	Citations
19	Optimal foraging in patchy turbulent environments. Marine Ecology - Progress Series, 2003, 256, 99-110.	1.9	24
20	Spatial structure arising from neighbour-dependent bias in collective cell movement. PeerJ, 2016, 4, e1689.	2.0	24
21	Early intervention is the key to success in COVID-19 control. Royal Society Open Science, 2021, 8, 210488.	2.4	20
22	Mathematical modelling to inform New Zealandâ€™s COVID-19 response. Journal of the Royal Society of New Zealand, 2021, 51, S86-S106.	1.9	19
23	Managing the risk of a COVID-19 outbreak from border arrivals. Journal of the Royal Society Interface, 2021, 18, 20210063.	3.4	19
24	A phenomenological model of muscle fatigue and the power-endurance relationship. Journal of Applied Physiology, 2012, 113, 1643-1651.	2.5	18
25	James et al. reply. Nature, 2013, 500, E2-E3.	27.8	16
26	Considering unseen arrivals in predictions of establishment risk based on border biosecurity interceptions. Ecological Applications, 2020, 30, e02194.	3.8	16
27	Climate-Based Models for Pulsed Resources Improve Predictability of Consumer Population Dynamics: Outbreaks of House Mice in Forest Ecosystems. PLoS ONE, 2015, 10, e0119139.	2.5	14
28	A structured model for COVID-19 spread: modelling age and healthcare inequities. Mathematical Medicine and Biology, 2021, 38, 299-313.	1.2	14
29	A nonlinear model of age and size-structured populations with applications to cell cycles. ANZIAM Journal, 2007, 49, 151-169.	0.2	13
30	Assessing the efficacy of population-level models of mast seeding. Theoretical Ecology, 2015, 8, 121-132.	1.0	13
31	â€œWe definitely wouldn't be able to solve it all by ourselves, but togetherâ€¦â€• group synergy in tertiary students' problem-solving practices. Research in Mathematics Education, 2014, 16, 306-323.	1.2	12
32	Model-free estimation of COVID-19 transmission dynamics from a complete outbreak. PLoS ONE, 2021, 16, e0238800.	2.5	12
33	Longâ€term biodiversity trajectories for pestâ€managed ecological restorations: eradication vs. suppression. Ecological Monographs, 2021, 91, e01439.	5.4	11
34	A dynamical model of honeydew droplet production by sooty-beech scale insects (Ultracoelostoma) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.5	9
35	From lessons to lectures: NCEA mathematics results and first-year mathematics performance. International Journal of Mathematical Education in Science and Technology, 2008, 39, 1037-1050.	1.4	9
36	Application of a spatial meta-population model with stochastic parameters to the management of the invasive grass Nassella trichotoma in North Canterbury, New Zealand. Ecological Modelling, 2011, 222, 1030-1037.	2.5	8

#	Article	IF	Citations
37	A mathematical model of the defence mechanism of a bombardier beetle. Journal of the Royal Society Interface, 2013, 10, 20120801.	3.4	8
38	Potential reduction in transmission of COVID-19 by digital contact tracing systems: a modelling study. Mathematical Medicine and Biology, 2022, 39, 156-168.	1.2	8
39	Multi-channel monolith reactors as dynamical systems. Combustion and Flame, 2003, 134, 193-205.	5.2	7
40	Does computer-aided formative assessment improve learning outcomes?. International Journal of Mathematical Education in Science and Technology, 2014, 45, 269-281.	1.4	7
41	Using family network data in child protection services. PLoS ONE, 2019, 14, e0224554.	2.5	7
42	MÄori and Pacific people in New Zealand have a higher risk of hospitalisation for COVID-19. New Zealand Medical Journal, 2021, 134, 28-43.	0.5	7
43	Meeting the needs of our best and brightest: curriculum acceleration in tertiary mathematics. International Journal of Mathematical Education in Science and Technology, 2011, 42, 299-312.	1.4	6
44	Competition and diffusive invasion in a noisy environment. Mathematical Medicine and Biology, 2011, 28, 153-163.	1.2	6
45	Kia kaua te reo e rite ki te moa, ka ngaro: do not let the language suffer the same fate as the moa. Journal of the Royal Society Interface, 2020, 17, 20190526.	3.4	6
46	Classification of behaviour in a steady plug-flow model of catalytic combustion. Chemical Engineering Science, 2001, 56, 4649-4658.	3.8	5
47	Modelling predation as a capped rate stochastic process, with applications to fish recruitment. Journal of the Royal Society Interface, 2005, 2, 477-487.	3.4	5
48	The necessity of tailored control of irrupting pest populations driven by pulsed resources. Theoretical Ecology, 2020, 13, 261-275.	1.0	5
49	The role of variance in capped-rate stochastic growth models with external mortality. Journal of Theoretical Biology, 2007, 244, 228-238.	1.7	4
50	How Herbivore Browsing Strategy Affects Whole-Plant Photosynthetic Capacity. Bulletin of Mathematical Biology, 2017, 79, 772-787.	1.9	4
51	Emergence of balanced harvesting in an agent-based model of an open-access small-scale fishery. Mathematical Biosciences, 2019, 316, 108245.	1.9	4
52	Optimal control of irrupting pest populations in a climate-driven ecosystem. PeerJ, 2018, 6, e6146.	2.0	4
53	Stability of multiple steady states of catalytic combustion. Combustion and Flame, 2002, 130, 137-146.	5.2	3
54	Evolutionarily Stable Strategies for Fecundity and Swimming Speed of Fish. Bulletin of Mathematical Biology, 2016, 78, 280-292.	1.9	3

#	Article	IF	Citations
55	ModellingTradescantia fluminensisto assess long term survival. PeerJ, 2015, 3, e1013.	2.0	3
56	Group by subject or by ability? Tertiary mathematics for engineering students. International Journal of Mathematical Education in Science and Technology, 2011, 42, 857-865.	1.4	2
57	Individual heterogeneity affects the outcome of small mammal pest eradication. Theoretical Ecology, 2021, 14, 219-231.	1.0	2
58	Control of Competitive Bioinvasion. Lecture Notes in Mathematics, 2013, , 293-305.	0.2	1
59	Spatial utilization predicts animal social contact networks are not scale-free. Royal Society Open Science, 2017, 4, 171209.	2.4	1
60	Predicting water levels in ephemeral wetlands under climate change scenarios. Theoretical Ecology, 2019, 12, 427-435.	1.0	1
61	Comment: weekly COVID-19 testing with household quarantine and contact tracing is feasible and would probably end the epidemic. Royal Society Open Science, 2021, 8, 201546.	2.4	1
62	Modelling the dynamic response of oxygen uptake to exercise. Discrete and Continuous Dynamical Systems - Series B, 2009, 12, 361-370.	0.9	1
63	An episodic model of honeydew production in scale insects. Austral Ecology, 2012, 37, 308-312.	1.5	0
64	Limiting Effect of Self-Shading on the Height of Tradescantia fluminensis Mats. Bulletin of Mathematical Biology, 2019, 81, 3918-3932.	1.9	0
65	Longâ€Term Biodiversity Benefits from Invasive Mammalian Pest Control in Ecological Restorations. Bulletin of the Ecological Society of America, 2021, 102, e01843.	0.2	0