

Hao Wang

List of Publications by Year in descending order

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91
papers

1,563
citations

331670

21
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377865

34
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91
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91
docs citations

91
times ranked

774
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamics of Indirectly Transmitted Infectious Diseases with Immunological Threshold. <i>Bulletin of Mathematical Biology</i> , 2009, 71, 845-862.	1.9	92
2	Spatiotemporal dynamics in the single population model with memory-based diffusion and nonlocal effect. <i>Journal of Differential Equations</i> , 2019, 267, 6316-6351.	2.2	77
3	Threshold behavior in a stochastic algal growth model with stoichiometric constraints and seasonal variation. <i>Journal of Differential Equations</i> , 2020, 268, 5113-5139.	2.2	71
4	On the "strict homeostasis" assumption in ecological stoichiometry. <i>Ecological Modelling</i> , 2012, 243, 81-88.	2.5	56
5	Geometric stability switch criteria in delay differential equations with two delays and delay dependent parameters. <i>Journal of Differential Equations</i> , 2019, 266, 7073-7100.	2.2	54
6	Diffusive Spatial Movement with Memory. <i>Journal of Dynamics and Differential Equations</i> , 2020, 32, 979-1002.	1.9	49
7	Dynamics of Stoichiometric Bacteria-Algae Interactions in the Epilimnion. <i>SIAM Journal on Applied Mathematics</i> , 2007, 68, 503-522.	1.8	46
8	Dynamics of a mechanistically derived stoichiometric producer-grazer model. <i>Journal of Biological Dynamics</i> , 2008, 2, 286-296.	1.7	46
9	Diffusive spatial movement with memory and maturation delays. <i>Nonlinearity</i> , 2019, 32, 3188-3208.	1.4	46
10	Modeling inverted biomass pyramids and refuges in ecosystems. <i>Ecological Modelling</i> , 2009, 220, 1376-1382.	2.5	44
11	Extracting the time-dependent transmission rate from infection data via solution of an inverse ODE problem. <i>Journal of Biological Dynamics</i> , 2012, 6, 509-523.	1.7	43
12	The impact of environmental toxins on predator-prey dynamics. <i>Journal of Theoretical Biology</i> , 2015, 378, 12-30.	1.7	42
13	Noise-Induced Transitions in a Nonsmooth Producer-Grazer Model with Stoichiometric Constraints. <i>Bulletin of Mathematical Biology</i> , 2020, 82, 55.	1.9	39
14	Dynamics of a Producer-Grazer Model Incorporating the Effects of Excess Food Nutrient Content on Grazer's Growth. <i>Bulletin of Mathematical Biology</i> , 2014, 76, 2175-2197.	1.9	35
15	Spatial movement with distributed memory. <i>Journal of Mathematical Biology</i> , 2021, 82, 33.	1.9	34
16	A model for the impact of contaminants on fish population dynamics. <i>Journal of Theoretical Biology</i> , 2013, 334, 71-79.	1.7	33
17	Global analysis of a stoichiometric producer-grazer model with Holling type functional responses. <i>Journal of Mathematical Biology</i> , 2011, 63, 901-932.	1.9	31
18	Spatiotemporal dynamics of a diffusive consumer-resource model with explicit spatial memory. <i>Studies in Applied Mathematics</i> , 2022, 148, 373-395.	2.4	31

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19	Spatiotemporal patterns of a diffusive prey-predator model with spatial memory and pregnancy period in an intimidatory environment. <i>Journal of Mathematical Biology</i> , 2022, 84, 12.	1.9	29
20	Spatial movement with diffusion and memory-based self-diffusion and cross-diffusion. <i>Journal of Differential Equations</i> , 2021, 305, 242-269.	2.2	27
21	Infectivity versus fatality of SARS-CoV-2 mutations and influenza. <i>International Journal of Infectious Diseases</i> , 2022, 121, 195-202.	3.3	27
22	The roles of predator maturation delay and functional response in determining the periodicity of predator-prey cycles. <i>Mathematical Biosciences</i> , 2009, 221, 1-10.	1.9	25
23	Analysis of a spatial memory model with nonlocal maturation delay and hostile boundary condition. <i>Discrete and Continuous Dynamical Systems</i> , 2020, 40, 5845-5868.	0.9	24
24	On Impulsive Reaction-Diffusion Models in Higher Dimensions. <i>SIAM Journal on Applied Mathematics</i> , 2017, 77, 224-246.	1.8	20
25	Analysis of Propagation for Impulsive Reaction-Diffusion Models. <i>SIAM Journal on Applied Mathematics</i> , 2020, 80, 521-542.	1.8	20
26	Accurate long-range forecasting of COVID-19 mortality in the USA. <i>Scientific Reports</i> , 2021, 11, 13822.	3.3	18
27	Second-generation stoichiometric mathematical model to predict methane emissions from oil sands tailings. <i>Science of the Total Environment</i> , 2019, 694, 133645.	8.0	17
28	Transient Dynamics of a Stoichiometric Cyanobacteria Model via Multiple-Scale Analysis. <i>SIAM Journal on Applied Mathematics</i> , 2020, 80, 1223-1246.	1.8	17
29	Dynamics of a Cholera Transmission Model with Immunological Threshold and Natural Phage Control in Reservoir. <i>Bulletin of Mathematical Biology</i> , 2014, 76, 2025-2051.	1.9	16
30	Stochastic sensitivity analysis of noise-induced transitions in a predator-prey model with environmental toxins. <i>Mathematical Biosciences and Engineering</i> , 2019, 16, 2141-2153.	1.9	16
31	Compensatory Foraging in Stoichiometric Producer-Grazer Models. <i>Bulletin of Mathematical Biology</i> , 2019, 81, 4932-4950.	1.9	15
32	Regulation of phosphate uptake kinetics in the bloom-forming dinoflagellates <i>prorocentrum donghaiense</i> with emphasis on two-stage dynamic process. <i>Journal of Theoretical Biology</i> , 2019, 463, 12-21.	1.7	15
33	Traveling wave of a reaction-diffusion vector-borne disease model with nonlocal effects and distributed delay. <i>Journal of Dynamics and Differential Equations</i> , 2023, 35, 3149-3185.	1.9	15
34	Linking bifurcation analysis of Holling-Tanner model with generalist predator to a changing environment. <i>Studies in Applied Mathematics</i> , 2022, 149, 124-163.	2.4	15
35	Mathematical analysis of coral reef models. <i>Journal of Mathematical Analysis and Applications</i> , 2014, 416, 352-373.	1.0	14
36	A Hybrid Continuous/Discrete-Time Model for Invasion Dynamics of Zebra Mussels in Rivers. <i>SIAM Journal on Applied Mathematics</i> , 2017, 77, 854-880.	1.8	14

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37	Traveling waves for a diffusive mosquito-borne epidemic model with general incidence. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 2022, 73, .	1.4	14
38	Somatic Growth Dilution of a toxicant in a predator-prey model under stoichiometric constraints. <i>Journal of Theoretical Biology</i> , 2016, 407, 198-211.	1.7	13
39	Complete Global and Bifurcation Analysis of a Stoichiometric Predator-Prey Model. <i>Journal of Dynamics and Differential Equations</i> , 2018, 30, 447-472.	1.9	13
40	Daphnia species invasion, competitive exclusion, and chaotic coexistence. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2009, 12, 481-493.	0.9	13
41	MODELING FISH BIOMASS STRUCTURE AT NEAR PRISTINE CORAL REEFS AND DEGRADATION BY FISHING. <i>Journal of Biological Systems</i> , 2012, 20, 21-36.	1.4	12
42	A stoichiometric organic matter decomposition model in a chemostat culture. <i>Journal of Mathematical Biology</i> , 2018, 76, 609-644.	1.9	12
43	Weak dynamical threshold for the strict homeostasis assumption in ecological stoichiometry. <i>Ecological Modelling</i> , 2018, 384, 233-240.	2.5	12
44	Stoichiometric Ecotoxicology for a Multisubstance World. <i>BioScience</i> , 2021, 71, 132-147.	4.9	12
45	Mathematical comparison and empirical review of the Monod and Droop forms for resource-based population dynamics. <i>Ecological Modelling</i> , 2022, 466, 109887.	2.5	12
46	The Inverse Method for a Childhood Infectious Disease Model with Its Application to Pre-vaccination and Post-vaccination Measles Data. <i>Bulletin of Mathematical Biology</i> , 2015, 77, 2231-2263.	1.9	11
47	A switching model for the impact of toxins on the spread of infectious diseases. <i>Journal of Mathematical Biology</i> , 2018, 77, 1093-1115.	1.9	11
48	Memory-based movement with spatiotemporal distributed delays in diffusion and reaction. <i>Applied Mathematics and Computation</i> , 2021, 404, 126254.	2.2	11
49	Stability and Bifurcation in a Stoichiometric Producer-Grazer Model with Knife Edge. <i>SIAM Journal on Applied Dynamical Systems</i> , 2016, 15, 2051-2077.	1.6	10
50	R_0 and sensitivity analysis of a predator-prey model with seasonality and maturation delay. <i>Mathematical Biosciences</i> , 2019, 315, 108225.	1.9	10
51	Phytoplankton Competition for Nutrients and Light in a Stratified Lake: A Mathematical Model Connecting Epilimnion and Hypolimnion. <i>Journal of Nonlinear Science</i> , 2021, 31, 1.	2.1	10
52	Stochastic switches of eutrophication and oligotrophication: Modeling extreme weather via non-Gaussian Lévy noise. <i>Chaos</i> , 2022, 32, 043116.	2.5	10
53	Nonpharmaceutical interventions contribute to the control of COVID-19 in China based on a pairwise model. <i>Infectious Disease Modelling</i> , 2021, 6, 643-663.	1.9	9
54	Modeling the bacterial contribution to planktonic community respiration in the regulation of solar energy and nutrient availability. <i>Ecological Complexity</i> , 2015, 23, 25-33.	2.9	8

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55	Global asymptotic stability of a Lotka–Volterra competition model with stochasticity in inter-specific competition. <i>Applied Mathematics Letters</i> , 2019, 89, 58-63.	2.7	8
56	Kinetics of phosphate uptake in the dinoflagellate <i>Karenia mikimotoi</i> in response to phosphate stress and temperature. <i>Ecological Modelling</i> , 2022, 468, 109909.	2.5	8
57	Refuge-mediated predator–prey dynamics and biomass pyramids. <i>Mathematical Biosciences</i> , 2018, 298, 29-45.	1.9	7
58	Stoichiometric food chain model on discrete time scale. <i>Mathematical Biosciences and Engineering</i> , 2019, 16, 101-118.	1.9	7
59	Dynamics of a periodic stoichiometric model with application in predicting and controlling algal bloom in Bohai Sea off China. <i>Mathematical Biosciences and Engineering</i> , 2019, 16, 119-138.	1.9	7
60	Bifurcations in the diffusive Bazykin model. <i>Journal of Differential Equations</i> , 2022, 323, 280-311.	2.2	7
61	Global Hopf branches and multiple limit cycles in a delayed Lotka-Volterra predator-prey model. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2014, 19, 747-760.	0.9	6
62	Extinction and Quasi-Stationarity for Discrete-Time, Endemic SIS and SIR Models. <i>SIAM Journal on Applied Mathematics</i> , 2021, 81, 2195-2217.	1.8	6
63	Dynamics of Stoichiometric Autotroph–Mixotroph–Bacteria Interactions in the Epilimnion. <i>Bulletin of Mathematical Biology</i> , 2022, 84, 5.	1.9	6
64	Dataset of COVID-19 outbreak and potential predictive features in the USA. <i>Data in Brief</i> , 2021, 38, 107360.	1.0	5
65	A Hypothesis-Free Bridging of Disease Dynamics and Non-pharmaceutical Policies. <i>Bulletin of Mathematical Biology</i> , 2022, 84, 57.	1.9	5
66	Evaluating the impacts of non-pharmaceutical interventions on the transmission dynamics of COVID-19 in Canada based on mobile network. <i>PLoS ONE</i> , 2021, 16, e0261424.	2.5	5
67	Adaptive Dynamics of a Stoichiometric Phosphorus–Algae–Zooplankton Model with Environmental Fluctuations. <i>Journal of Nonlinear Science</i> , 2022, 32, 1.	2.1	5
68	Evaluating Strategies For Tuberculosis to Achieve the Goals of WHO in China: A Seasonal Age-Structured Model Study. <i>Bulletin of Mathematical Biology</i> , 2022, 84, 61.	1.9	5
69	Temperature- and Turbidity-Dependent Competitive Interactions Between Invasive Freshwater Mussels. <i>Bulletin of Mathematical Biology</i> , 2016, 78, 353-380.	1.9	4
70	Contrasting stoichiometric dynamics in terrestrial and aquatic grazer–producer systems. <i>Journal of Biological Dynamics</i> , 2021, 15, S3-S34.	1.7	4
71	Modeling Rabies Transmission in Spatially Heterogeneous Environments via θ -diffusion. <i>Bulletin of Mathematical Biology</i> , 2021, 83, 16.	1.9	4
72	Bistable traveling waves in impulsive reaction-advection-diffusion models. <i>Journal of Differential Equations</i> , 2021, 285, 17-39.	2.2	4

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73	Incorporating carbon dioxide into a stoichiometric producer–grazer model. <i>Journal of Mathematical Biology</i> , 2021, 83, 49.	1.9	4
74	Coupling the socio-economic and ecological dynamics of cyanobacteria: Single lake and network dynamics. <i>Ecological Economics</i> , 2022, 194, 107324.	5.7	4
75	Complex Dynamics in a General Diffusive Predator–Prey Model with Predator Maturation Delay. <i>Journal of Dynamics and Differential Equations</i> , 0, , .	1.9	4
76	Dynamics of coral reef models in the presence of parrotfish. <i>Natural Resource Modelling</i> , 2019, 32, e12202.	2.0	3
77	Stoichiometric Modeling of Aboveground–Belowground Interaction of Herbaceous Plant and Two Herbivores. <i>Bulletin of Mathematical Biology</i> , 2020, 82, 107.	1.9	3
78	Spatial modeling and dynamics of organic matter biodegradation in the absence or presence of bacterivorous grazing. <i>Mathematical Biosciences</i> , 2021, 331, 108501.	1.9	3
79	Modeling the early transmission of COVID-19 in New York and San Francisco using a pairwise network model. <i>Infectious Disease Modelling</i> , 2022, 7, 212-230.	1.9	3
80	Geometric singular perturbation of a nonlocal partially degenerate model for <i>Aedes aegypti</i> . <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2023, 28, 1279.	0.9	3
81	A longitudinal dataset of incidence and intervention policy impacts regarding the COVID-19 pandemic in Canadian provinces. <i>Data in Brief</i> , 2021, 38, 107381.	1.0	2
82	Dynamics of a discrete-time stoichiometric optimal foraging model. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2021, 26, 107-120.	0.9	2
83	Alternative models for cyclic lemming dynamics. <i>Mathematical Biosciences and Engineering</i> , 2007, 4, 85-99.	1.9	2
84	Discrete-time versus continuous-time toxic predation models. <i>Journal of Difference Equations and Applications</i> , 2022, 28, 244-258.	1.1	2
85	Algae–Bacteria Interactions with Nutrients and Light: A Reaction–Diffusion–Advection Model. <i>Journal of Nonlinear Science</i> , 2022, 32, .	2.1	2
86	Competitive Exclusion and Coexistence in a Stoichiometric Chemostat Model. <i>Journal of Dynamics and Differential Equations</i> , 0, , .	1.9	2
87	A mathematical model for <i>Vibrio</i> -phage interactions. <i>Mathematical Biosciences and Engineering</i> , 2021, 18, 2688-2712.	1.9	1
88	A Fisher–KPP Model with a Nonlocal Weighted Free Boundary: Analysis of How Habitat Boundaries Expand, Balance or Shrink. <i>Bulletin of Mathematical Biology</i> , 2022, 84, 34.	1.9	1
89	Dispersal-driven coexistence in a multiple-patch competition model for zebra and quagga mussels. <i>Journal of Difference Equations and Applications</i> , 0, , 1-15.	1.1	1
90	Global dynamics of a diffusive competition model with habitat degradation. <i>Journal of Mathematical Biology</i> , 2022, 84, 18.	1.9	1

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91	Impacts of a changing environment on a stoichiometric producer-grazer system: a stochastic modelling approach. <i>Ecological Modelling</i> , 2022, 469, 109971.	2.5	1