Huaiping Zhu

List of Publications by Year
in descending order

118 papers	3,745 citations	147801 31 h-index	149698 56 g-index
126 all docs	126 docs citations	126 times ranked	2410 citing authors

#	Article	IF	Citations
1	The Impact of Media on the Control of Infectious Diseases. Journal of Dynamics and Differential Equations, 2008, 20, 31-53.	1.9	305
2	A mathematical model for assessing control strategies against West Nile virus. Bulletin of Mathematical Biology, 2005, 67, 1107-1133.	1.9	236
3	Media/Psychological Impact on Multiple Outbreaks of Emerging Infectious Diseases. Computational and Mathematical Methods in Medicine, 2007, 8, 153-164.	1.3	226
4	Forecast of Dengue Incidence Using Temperature and Rainfall. PLoS Neglected Tropical Diseases, 2012, 6, e1908.	3.0	215
5	Bifurcation Analysis of a Predator-Prey System with Nonmonotonic Functional Response. SIAM Journal on Applied Mathematics, 2003, 63, 636-682.	1.8	190
6	An SIS Infection Model Incorporating Media Coverage. Rocky Mountain Journal of Mathematics, 2008, 38, .	0.4	179
7	A SIS reactionâ€“diffusionâ€“advection model in a low-risk and high-risk domain. Journal of Differential Equations, 2015, 259, 5486-5509.	2.2	131
8	Bifurcations and complex dynamics of an SIR model with the impact of the number of hospital beds. Journal of Differential Equations, 2014, 257, 1662-1688.	2.2	100
9	A data-driven network model for the emerging COVID-19 epidemics in Wuhan, Toronto and Italy. Mathematical Biosciences, 2020, 326, 108391.	1.9	88
10	Modeling the spread and control of dengue with limited public health resources. Mathematical Biosciences, 2016, 271, 136-145.	1.9	84
11	Spatial spreading model and dynamics of West Nile virus in birds and mosquitoes with free boundary. Journal of Mathematical Biology, 2017, 75, 1381-1409.	1.9	83
12	Canard cycles for predatorâ€“prey systems with Holling types of functional response. Journal of Differential Equations, 2013, 254, 879-910.	2.2	81
13	Critical Role of Nosocomial Transmission in the Toronto SARS Outbreak. Mathematical Biosciences and Engineering, 2004, 1, 1-13.	1.9	76
14	Multiple Focus and Hopf Bifurcations in a Predator-Prey System with Nonmonotonic Functional Response. SIAM Journal on Applied Mathematics, 2006, 66, 802-819.	1.8	70
15	The Impact of Weather Conditions on Culex pipiens and Culex restuans (Diptera: Culicidae) Abundance: A Case Study in Peel Region. Journal of Medical Entomology, 2011, 48, 468-475.	1.8	67
16	Transmission dynamics of West Nile virus in mosquitoes and corvids and non-corvids. Journal of Mathematical Biology, 2014, 68, 1553-1582.	1.9	53
17	The dynamics of temperature and light on the growth of phytoplankton. Journal of Theoretical Biology, 2015, 385, 8-19.	1.7	48
18	Modeling spatial spread of west nile virus and impact of directional dispersal of birds. Mathematical Biosciences and Engineering, 2006, 3, 145-160.	1.9	48

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19	Existence and roughness of exponential dichotomies of linear dynamic equations on time scales. Computers and Mathematics With Applications, 2010, 59, 2658-2675.	2.7	47
20	The impact of maturation delay of mosquitoes on the transmission of West Nile virus. Mathematical Biosciences, 2010, 228, 119-126.	1.9	47
21	Epidemic models for complex networks with demographics. Mathematical Biosciences and Engineering, 2014, 11, 1295-1317.	1.9	47
22	Bifurcation analysis of a plantâ€"herbivore model with toxin-determined functional response. Journal of Differential Equations, 2008, 245, 442-467.	2.2	46
23	Threshold Conditions for West Nile Virus Outbreaks. Bulletin of Mathematical Biology, 2009, 71, 627-647.	1.9	45
24	TRAVELING WAVES FOR AN INTEGRABLE HIGHER ORDER KDV TYPE WAVE EQUATIONS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2006, 16, 2235-2260.	1.7	42
25	Complex dynamics of epidemic models on adaptive networks. Journal of Differential Equations, 2019, 266, 803-832.	2.2	42
26	Fangcang shelter hospitals during the COVID-19 epidemic, Wuhan, China. Bulletin of the World Health Organization, 2020, 98, 830-841D.	3.3	40
27	The backward bifurcation in compartmental models for West Nile virus. Mathematical Biosciences, 2010, 227, 20-28.	1.9	39
28	Nilpotent singularities and dynamics in an SIR type of compartmental model with hospital resources. Journal of Differential Equations, 2016, 260, 4339-4365.	2.2	38
29	The Driving Force for 2014 Dengue Outbreak in Guangdong, China. PLoS ONE, 2016, 11, e0166211.	2.5	35
30	Four-tier response system and spatial propagation of COVID-19 in China by a network model. Mathematical Biosciences, 2020, 330, 108484.	1.9	35
31	Modeling the Effects of Augmentation Strategies on the Control of Dengue Fever With an Impulsive Differential Equation. Bulletin of Mathematical Biology, 2016, 78, 1968-2010.	1.9	32
32	Modeling the transmission and control of Zika in Brazil. Scientific Reports, 2017, 7, 7721.	3.3	32
33	Finite Cyclicity of Graphics with a Nilpotent Singularity of Saddle or Elliptic Type. Journal of Differential Equations, 2002, 178, 325-436.	2.2	31
34	The impact of cover crops on the predatory mite <i>Anystis baccarum</i> (Acari, Anystidae) and the leafhopper pest <i>Empoasca onukii</i> (Hemiptera, Cicadellidae) in a tea plantation. Pest Management Science, 2019, 75, 3371-3380.	3.4	31
35	Dynamics of a Filippov epidemic model with limited hospital beds. Mathematical Biosciences and Engineering, 2018, 15, 739-764.	1.9	28
36	LIMIT CYCLE BIFURCATIONS IN NEAR-HAMILTONIAN SYSTEMS BY PERTURBING A NILPOTENT CENTER. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 3013-3027.	1.7	27

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37	Delay differential systems for tick population dynamics. Journal of Mathematical Biology, 2015, 71, 1017-1048.	1.9	27
38	The loop quantities and bifurcations of homoclinic loops. Journal of Differential Equations, 2007, 234, 339-359.	2.2	25
39	Bifurcation of an SIS model with nonlinear contact rate. Journal of Mathematical Analysis and Applications, 2015, 432, 1119-1138.	1.0	24
40	Modeling and Dynamics Analysis of Zika Transmission with Limited Medical Resources. Bulletin of Mathematical Biology, 2020, 82, 99.	1.9	23
41	Modeling and dynamics of Wolbachia-infected male releases and mating competition on mosquito control. Journal of Mathematical Biology, 2020, 81, 243-276.	1.9	22
42	Trend in frequency of extreme precipitation events over Ontario from ensembles of multiple GCMs. Climate Dynamics, 2016, 46, 2909-2921.	3.8	21
43	Free boundary models for mosquito range movement driven by climate warming. Journal of Mathematical Biology, 2018, 76, 841-875.	1.9	21
44	Fast and Slow Dynamics of Malaria and the S-gene Frequency. Journal of Dynamics and Differential Equations, 2004, 16, 869-896.	1.9	19
45	Cover Crops Enhance Natural Enemies While Help Suppressing Pests in a Tea Plantation. Annals of the Entomological Society of America, 2019, 112, 348-355.	2.5	19
46	Multi-host transmission dynamics of schistosomiasis and its optimal control. Mathematical Biosciences and Engineering, 2015, 12, 983-1006.	1.9	19
47	Periodic solution of single population models on time scales. Mathematical and Computer Modelling, 2010, 52, 515-521.	2.0	16
48	Using machine learning to synthesize spatiotemporal data for modelling DBH-height and DBH-height-age relationships in boreal forests. Forest Ecology and Management, 2020, 466, 118104.	3.2	16
49	School and community reopening during the COVID-19 pandemic: a mathematical modelling study. Royal Society Open Science, 2022, 9, 211883.	2.4	15
50	The impact of prophylaxis of healthcare workers on influenza pandemic burden. Journal of the Royal Society Interface, 2007, 4, 727-734.	3.4	14
51	Spatialâ€temporal basic reproduction number and dynamics for a dengue disease diffusion model. Mathematical Methods in the Applied Sciences, 2018, 41, 5388-5403.	2.3	14
52	The impact of weather and storm water management ponds on the transmission of West Nile virus. Royal Society Open Science, 2017, 4, 170017.	2.4	13
53	Models to assess the effects of non-identical sex ratio augmentations of Wolbachia -carrying mosquitoes on the control of dengue disease. Mathematical Biosciences, 2018, 299, 58-72.	1.9	13
54	Impact of disposing stray dogs on risk assessment and control of Echinococcosis in Inner Mongolia. Mathematical Biosciences, 2018, 299, 85-96.	1.9	13

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55	Projections of the transmission of the Omicron variant for Toronto, Ontario, and Canada using surveillance data following recent changes in testing policies. Infectious Disease Modelling, 2022, 7, 83-93.	1.9	13
56	Downscaling RCP8.5 daily temperatures and precipitation in Ontario using localized ensemble optimal interpolation (EnOI) and bias correction. Climate Dynamics, 2018, 51, 411-431.	3.8	12
57	Dynamic modeling and optimal control of cystic echinococcosis. Infectious Diseases of Poverty, 2021, 10, 38.	3.7	12
58	Modeling the outbreak and control of African swine fever virus in large-scale pig farms. Journal of Theoretical Biology, 2021, 526, 110798.	1.7	12
59	A new model with delay for mosquito population dynamics. Mathematical Biosciences and Engineering, 2014, 11, 1395-1410.	1.9	12
60	Effect of seasonal changing temperature on the growth of phytoplankton. Mathematical Biosciences and Engineering, 2017, 14, 1091-1117.	1.9	12
61	Mathematical modelling of vaccination rollout and NPIs lifting on COVID-19 transmission with VOC: a case study in Toronto, Canada. BMC Public Health, 2022, 22, .	2.9	12
62	The Bifurcation Study of 1:2 Resonance in a Delayed System of Two Coupled Neurons. Journal of Dynamics and Differential Equations, 2013, 25, 193-216.	1.9	11
63	Two-patch model for the spread of West Nile virus. Bulletin of Mathematical Biology, 2018, 80, 840-863.	1.9	11
64	Optimal Control of Mitigation Strategies for Dengue Virus Transmission. Bulletin of Mathematical Biology, 2021, 83, 8.	1.9	11
65	Efficacy of a â€œstay-at-homeâ€• policy on SARS-CoV-2 transmission in Toronto, Canada: a mathematical modelling study. CMAJ Open, 2022, 10, E367-E378.	2.4	11
66	PP-graphics with a nilpotent elliptic singularity in quadratic systems and Hilbert's 16th problem. Journal of Differential Equations, 2004, 196, 169-208.	2.2	10
67	Necessary and sufficient criteria for the existence of exponential dichotomy on time scales. Computers and Mathematics With Applications, 2010, 60, 2387-2398.	2.7	10
68	The Dynamics of Growing Islets and Transmission of Schistosomiasis Japonica in the Yangtze River. Bulletin of Mathematical Biology, 2014, 76, 1194-1217.	1.9	10
69	Stochastic modeling of algal bloom dynamics with delayed nutrient recycling. Mathematical Biosciences and Engineering, 2019, 16, 1-24.	1.9	10
70	Dataâ€driven dynamical modelling of the transmission of African swine fever in a few places in China. Transboundary and Emerging Diseases, 2022, 69, .	3.0	10
71	MODELING THE SCHISTOSOMIASIS ON THE ISLETS IN NANJING. International Journal of Biomathematics, 2012, 05, 1250037.	2.9	9
72	Analysis of a stochastic model for algal bloom with nutrient recycling. International Journal of Biomathematics, 2016, 09, 1650083.	2.9	9

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73	Transmission dynamics of a two-strain pairwise model with infection age. Applied Mathematical Modelling, 2019, 71, 656-672.	4.2	9
74	Nonpharmaceutical interventions contribute to the control of COVID-19 in China based on a pairwise model. Infectious Disease Modelling, 2021, 6, 643-663.	1.9	9
75	Complex dynamics of a nutrient-plankton system with nonlinear phytoplankton morality and allelopathy. Discrete and Continuous Dynamical Systems - Series B, 2016, 21, 2703-2728.	0.9	9
76	Asymptotic behavior of a delayed stochastic logistic model with impulsive perturbations. Mathematical Biosciences and Engineering, 2017, 14, 1477-1498.	1.9	9
77	Dynamical analysis of a toxin-producing phytoplankton-zooplankton model with refuge. Mathematical Biosciences and Engineering, 2016, 13, 10-10.	1.9	9
78	When and How to Adjust Non-Pharmacological Interventions Concurrent with Booster Vaccinations Against COVID-19 â€" Guangdong, China, 2022. China CDC Weekly, 2022, 4, 199-206.	2.3	9
79	Discrete time hedging with liquidity risk. Finance Research Letters, 2012, 9, 135-143.	6.7	8
80	Dynamic analysis of discrete-time, continuous-time and delayed feedback jerky equations. Nonlinear Dynamics, 2016, 86, 107-130.	5.2	8
81	Nonuniform (h,k,Î¼,Î½)-dichotomy with applications to nonautonomous dynamical systems. Journal of Mathematical Analysis and Applications, 2017, 452, 505-551.	1.0	8
82	Temperature-driven population abundance model for Culex pipiens and Culex restuans (Diptera:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	1.7	8
83	Periodic Phenomena and Driving Mechanisms in Transmission of West Nile Virus with Maturation Time. Journal of Dynamics and Differential Equations, 2020, 32, 1003-1026.	1.9	8
84	Evaluating the impact of the travel ban within mainland China on the epidemic of the COVID-19. International Journal of Infectious Diseases, 2021, 107, 278-283.	3.3	8
85	How seasonal forcing influences the complexity of a predator-prey system. Discrete and Continuous Dynamical Systems - Series B, 2018, 23, 785-807.	0.9	8
86	Monotone dynamics and global behaviors of a West Nile virus model with mosquito demographics. Journal of Mathematical Biology, 2020, 80, 809-834.	1.9	7
87	A Singular Singularly Perturbed Boundary Value Problem of the Second Order Quasilinear Systems. Journal of Mathematical Analysis and Applications, 1994, 182, 320-347.	1.0	6
88	A series of population models for Hyphantria cunea with delay and seasonality. Mathematical Biosciences, 2017, 292, 57-66.	1.9	6
89	Modeling and dynamics of physiological and behavioral resistance of Asian citrus psyllid. Mathematical Biosciences, 2021, 340, 108674.	1.9	6
90	THE IMPACT OF RESOURCE AND TEMPERATURE ON MALARIA TRANSMISSION. Journal of Biological Systems, 2012, 20, 285-302.	1.4	5

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91	Clustering of the abundance of West Nile virus vector mosquitoes in Peel Region, Ontario, Canada. Environmental and Ecological Statistics, 2014, 21, 651-666.	3.5	5
92	The Ontario Climate Data Portal, a user-friendly portal of Ontario-specific climate projections. Scientific Data, 2020, 7, 147.	5.3	5
93	Global Hopf bifurcation and dynamics of a stage-structured model with delays for tick population. Journal of Differential Equations, 2021, 284, 1-22.	2.2	5
94	Dynamics Complexity of Generalist Predatory Mite and the Leafhopper Pest in Tea Plantations. Journal of Dynamics and Differential Equations, 2023, 35, 2833-2871.	1.9	5
95	Dynamics Analysis of an Avian Influenza A (H7N9) Epidemic Model with Vaccination and Seasonality. Complexity, 2019, 2019, 1-15.	1.6	4
96	Dynamics of Nonconstant Steady States of the Selâ€™kov Model with Saturation Effect. Journal of Nonlinear Science, 2020, 30, 1553-1577.	2.1	4
97	Models to assess imported cases on the rebound of COVID-19 and design a long-term border control strategy in Heilongjiang Province, China. Mathematical Biosciences and Engineering, 2022, 19, 1-33.	1.9	4
98	Role of seasonality and spatial heterogeneous in the transmission dynamics of avian influenza. Nonlinear Analysis: Real World Applications, 2022, 67, 103567.	1.7	4
99	Mixture Markov regression model with application to mosquito surveillance data analysis. Biometrical Journal, 2017, 59, 462-477.	1.0	3
100	Global bifurcation studies of a cubic LiÃ©nard system. Journal of Mathematical Analysis and Applications, 2021, 496, 124810.	1.0	3
101	MODELING THE SPREAD OF WEST NILE VIRUS IN A SPATIALLY HETEROGENEOUS AND ADVECTIVE ENVIRONMENT. Journal of Applied Analysis and Computation, 2021, 11, 1868-1897.	0.5	3
102	The transmission of dengue virus with <i>Aedes aegypti</i> mosquito in a heterogeneous environment. International Journal of Biomathematics, 2021, 14, 2150026.	2.9	3
103	Bifurcation and Dynamic Analyses of Non-monotonic Predatorâ€“Prey System with Constant Releasing Rate of Predators. Qualitative Theory of Dynamical Systems, 2022, 21, 1.	1.7	3
104	The Impact of Quarantine and Medical Resources on the Control of COVID-19 in Wuhan based on a Household Model. Bulletin of Mathematical Biology, 2022, 84, 47.	1.9	3
105	The nilpotent bifurcations in a model for generalist predatory mite and pest leafhopper with stage structure. Journal of Differential Equations, 2022, 321, 99-129.	2.2	3
106	The Dirichlet Problem for a Singular Singularly Perturbed Quasilinear Second Order Differential System. Journal of Mathematical Analysis and Applications, 1997, 210, 308-336.	1.0	2
107	Modelling the scorpion stings using surveillance data in El Bayadh Province, Algeria. Asian Pacific Journal of Tropical Disease, 2016, 6, 961-968.	0.5	2
108	Assessment of regional vulnerability to Africa swine fever in China during 2018/8â€"2019/7 based on data envelopment analysis method. Transboundary and Emerging Diseases, 2021, 68, 2455-2464.	3.0	2

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109	Efficacy of 'Stay-at-Home' Policy and Transmission of COVID-19 in Toronto, Canada: A Mathematical Modeling Study. SSRN Electronic Journal, 0, , .	0.4	2
110	Environmental risks in a diffusive SIS model incorporating use efficiency of the medical resource. Discrete and Continuous Dynamical Systems - Series B, 2016, 21, 1469-1481.	0.9	2
111	Modeling and Simulation Studies of West Nile Virus in Southern Ontario Canada. Series in Contemporary Applied Mathematics, 2009, , 331-343.	0.8	1
112	Finite Cyclicity of Some Graphics Through a Nilpotent Point of Saddle Type Inside Quadratic Systems. Qualitative Theory of Dynamical Systems, 2016, 15, 237-256.	1.7	1
113	Modeling Spatiotemporal Distribution of Mosquitoes Abundance With Unobservable Environmental Factors. Journal of Medical Entomology, 2019, 56, 65-71.	1.8	1
114	Dynamics of a delay Schistosomiasis model in snail infections. Mathematical Biosciences and Engineering, 2011, 8, 1099-1115.	1.9	1
115	BIRDS MOVEMENT IMPACT ON THE TRANSMISSION OF WEST NILE VIRUS BETWEEN PATCHES. Journal of Applied Analysis and Computation, 2018, 8, 443-456.	0.5	1
116	A Network Dynamics Model for the Transmission of COVID-19 in Diamond Princess and a Response to Reopen Large-Scale Public Facilities. Healthcare (Switzerland), 2022, 10, 139.	2.0	1
117	The threshold value of the number of hospital beds in a SEIHR epidemic model. Discrete and Continuous Dynamical Systems - Series B, 2023, 28, 1436.	0.9	1
118	FROM THE PP-GRAPHICS TO THE FINITENESS PART OF HILBERT'S 16TH PROBLEM FOR QUADRATIC SYSTEMS. , 2005, , .		0