Weiming Wang

List of Publications by Citations

128 papers	4,343 citations	31 h-index	63 g-index
133 ext. papers	5,181 ext. citations	3.1 avg, IF	6.27 L-index

#	Paper	IF	Citations
128	Preliminary estimation of the basic reproduction number of novel coronavirus (2019-nCoV) in China, from 2019 to 2020: A data-driven analysis in the early phase of the outbreak. *International Journal of Infectious Diseases*, **2020**, 92, 214-217	10.5	1027
127	A conceptual model for the coronavirus disease 2019 (COVID-19) outbreak in Wuhan, China with individual reaction and governmental action. *International Journal of Infectious Diseases*, **2020**, 93, 211-216	10.5	566
126	Estimating the Unreported Number of Novel Coronavirus (2019-nCoV) Cases in China in the First Half of January 2020: A Data-Driven Modelling Analysis of the Early Outbreak. *Journal of Clinical Medicine*, **2020**, 9,	5.1	273
125	A stochastic SIRS epidemic model with infectious force under intervention strategies. *Journal of Differential Equations*, **2015**, 259, 7463-7502	2.1	185
124	A stochastic SIRS epidemic model with nonlinear incidence rate. *Applied Mathematics and Computation*, **2017**, 305, 221-240	2.7	136
123	Spatiotemporal complexity of a ratio-dependent predator-prey system. *Physical Review E*, **2007**, 75, 051913	2.4	118
122	Environmental variability in a stochastic epidemic model. *Applied Mathematics and Computation*, **2018**, 329, 210-226	2.7	94
121	Impact of the fear effect in a prey-predator model incorporating a prey refuge. *Applied Mathematics and Computation*, **2019**, 356, 328-337	2.7	81
120	A stochastic epidemic model incorporating media coverage. *Communications in Mathematical Sciences*, **2016**, 14, 893-910	1	70
119	Pattern formation of a predator–prey system with Ivlev-type functional response. *Ecological Modelling*, **2010**, 221, 131-140	3	63
118	Spatiotemporal dynamics of a Leslie–Gower predator–prey model incorporating a prey refuge. *Nonlinear Analysis: Real World Applications*, **2011**, 12, 2385-2395	2.1	57
117	Stochastic persistence and stationary distribution in an SIS epidemic model with media coverage. *Physica A: Statistical Mechanics and Its Applications*, **2018**, 492, 2220-2236	3.3	54
116	Complex patterns in a predator–prey model with self and cross-diffusion. *Communications in Nonlinear Science and Numerical Simulation*, **2011**, 16, 2006-2015	3.7	54
115	A stochastic differential equation SIS epidemic model incorporating Ornstein–Uhlenbeck process. *Physica A: Statistical Mechanics and Its Applications*, **2018**, 509, 921-936	3.3	54
114	The dynamic complexity of a three-species Beddington-type food chain with impulsive control strategy. *Chaos, Solitons and Fractals*, **2007**, 32, 1772-1785	9.3	53
113	Complex dynamics of a reaction–diffusion epidemic model. *Nonlinear Analysis: Real World Applications*, **2012**, 13, 2240-2258	2.1	52
112	Periodic behavior in a FIV model with seasonality as well as environment fluctuations. *Journal of the Franklin Institute*, **2017**, 354, 7410-7428	4	49

111	A stochastic SIS epidemic model with vaccination. *Physica A: Statistical Mechanics and Its Applications*, **2017**, 486, 127-143	3.3	46
110	Dynamics of a Leslie–Gower predator–prey model with additive Allee effect. *Applied Mathematical Modelling*, **2015**, 39, 2092-2106	4.5	45
109	The effect of the fear factor on the dynamics of a predator-prey model incorporating the prey refuge. *Chaos*, **2019**, 29, 083109	3.3	45
108	Complex Dynamics of a host–parasite model with both horizontal and vertical transmissions in a spatial heterogeneous environment. *Nonlinear Analysis: Real World Applications*, **2018**, 40, 444-465	2.1	45
107	COVID-19 and gender-specific difference: Analysis of public surveillance data in Hong Kong and Shenzhen, China, from January 10 to February 15, 2020. *Infection Control and Hospital Epidemiology*, **2020**, 41, 750-751	2	42
106	The dynamics of a Beddington-type system with impulsive control strategy. *Chaos, Solitons and Fractals*, **2006**, 29, 1229-1239	9.3	41
105	Fish-hook bifurcation branch in a spatial heterogeneous epidemic model with cross-diffusion. *Nonlinear Analysis: Real World Applications*, **2016**, 30, 99-125	2.1	36
104	The dynamical complexity of a Ivlev-type prey–predator system with impulsive effect. *Chaos, Solitons and Fractals*, **2008**, 38, 1168-1176	9.3	36
103	An algorithm for solving the high-order nonlinear Volterra–Fredholm integro-differential equation with mechanization. *Applied Mathematics and Computation*, **2006**, 172, 1-23	2.7	36
102	Estimating the Serial Interval of the Novel Coronavirus Disease (COVID-19): A Statistical Analysis Using the Public Data in Hong Kong From January 16 to February 15, 2020. *Frontiers in Physics*, **2020**, 8,	3.9	34
101	Global transmission dynamics of a Zika virus model. *Applied Mathematics Letters*, **2019**, 92, 190-195	3.5	33
100	Serial interval in determining the estimation of reproduction number of the novel coronavirus disease (COVID-19) during the early outbreak. *Journal of Travel Medicine*, **2020**, 27,	12.9	33
99	Spatiotemporal transmission dynamics for influenza disease in a heterogenous environment. *Nonlinear Analysis: Real World Applications*, **2019**, 46, 178-194	2.1	32
98	Dynamical complexity induced by Allee effect in a predator–prey model. *Nonlinear Analysis: Real World Applications*, **2014**, 16, 103-119	2.1	31
97	A new algorithm for integral of trigonometric functions with mechanization. *Applied Mathematics and Computation*, **2005**, 164, 71-82	2.7	31
96	Turing patterns in a diffusive epidemic model with saturated infection force. *Journal of the Franklin Institute*, **2018**, 355, 7226-7245	4	30
95	Bifurcations and Pattern Formation in a Predator–Prey Model. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2018**, 28, 1850140	2	26
94	A new mechanical algorithm for solving the second kind of Fredholm integral equation. *Applied Mathematics and Computation*, **2006**, 172, 946-962	2.7	25

93	Global threshold dynamics of a stochastic epidemic model incorporating media coverage. *Advances in Difference Equations*, **2018**, 2018,	3.6	24
92	A new algorithm for symbolic integral with application. *Applied Mathematics and Computation*, **2005** , 162, 949-968	2.7	23
91	Spatiotemporal dynamics in a delayed diffusive predator model. *Applied Mathematics and Computation*, **2013**, 224, 524-534	2.7	21
90	Spatiotemporal complexity in a predator--prey model with weak Allee effects. *Mathematical Biosciences and Engineering*, **2014**, 11, 1247-74	2.1	21
89	The basic reproduction number of novel coronavirus (2019-nCoV) estimation based on exponential growth in the early outbreak in China from 2019 to 2020: A reply to Dhungana. *International Journal of Infectious Diseases*, **2020**, 94, 148-150	10.5	20
88	Chaotic behavior of a three-species Beddington-type system with impulsive perturbations. *Chaos, Solitons and Fractals*, **2008**, 37, 438-443	9.3	19
87	PATTERN SELECTION IN AN EPIDEMIC MODEL WITH SELF AND CROSS DIFFUSION. *Journal of Biological Systems*, **2011**, 19, 19-31	1.6	16
86	Spatiotemporal complexity of a predator–prey system with the effect of noise and external forcing. *Chaos, Solitons and Fractals*, **2009**, 41, 1634-1644	9.3	16
85	Numerical study of pattern formation in an extended Gray–Scott model. *Communications in Nonlinear Science and Numerical Simulation*, **2011**, 16, 2016-2026	3.7	16
84	Chaotic behavior of a Watt-type predator–prey system with impulsive control strategy. *Chaos, Solitons and Fractals*, **2008**, 37, 706-718	9.3	16
83	Complicated dynamics of a predator–prey system with Watt-type functional response and impulsive control strategy?. *Chaos, Solitons and Fractals*, **2008**, 37, 1427-1441	9.3	16
82	Transmission dynamics of Zika virus with spatial structure—A case study in Rio de Janeiro, Brazil. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 514, 729-740	3.3	16
81	Stability and Hopf bifurcation of the stationary solutions to an epidemic model with cross-diffusion. *Computers and Mathematics With Applications*, **2015**, 70, 1906-1920	2.7	15
80	Stochastic dynamics of feline immunodeficiency virus within cat populations. *Journal of the Franklin Institute*, **2016**, 353, 4191-4212	4	15
79	Complex dynamics of a diffusive epidemic model with strong Allee effect. *Nonlinear Analysis: Real World Applications*, **2013**, 14, 1907-1920	2.1	13
78	Delay-driven pattern formation in a reaction–diffusion predator–prey model incorporating a prey refuge. *Journal of Statistical Mechanics: Theory and Experiment*, **2013**, 2013, P04006	1.9	13
77	Pattern selection in a ratio-dependent predator–prey model. *Journal of Statistical Mechanics: Theory and Experiment*, **2010**, 2010, P11036	1.9	13
76	Stability and Hopf Bifurcation in a Predator–Prey Model with the Cost of Anti-Predator Behaviors. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2019**, 29, 1950185	2	13

75	Stochastic Dynamics of an SIRS Epidemic Model with Ratio-Dependent Incidence Rate. *Abstract and Applied Analysis*, **2013**, 2013, 1-11	0.7	12
74	Spatiotemporal dynamics of a reaction□diffusion epidemic model with nonlinear incidence rate. *Journal of Statistical Mechanics: Theory and Experiment*, **2011**, 2011, P02025	1.9	12
73	A mechanical algorithm for solving the Volterra integral equation. *Applied Mathematics and Computation*, **2006**, 172, 1323-1341	2.7	12
72	Estimating the serial interval of the novel coronavirus disease (COVID-19): A statistical analysis using the public data in Hong Kong from January 16 to February 15, 2020		12
71	Bifurcation and Turing pattern formation in a diffusive ratio-dependent predator□prey model with predator harvesting. *Nonlinear Analysis: Real World Applications*, **2020**, 51, 102962	2.1	12
70	A stochastic SIS model driven by random diffusion of air pollutants. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 532, 121759	3.3	11
69	Optimal harvesting policy of logistic population model in a randomly fluctuating environment. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 526, 120817	3.3	11
68	Dynamic behavior of a stochastic SIRS epidemic model with media coverage. *Mathematical Methods in the Applied Sciences*, **2018**, 41, 5506-5525	2.3	11
67	Smooth Pullback Attractors for a Non-autonomous 2D Non-Newtonian Fluid and Their Tempered Behaviors. *Journal of Mathematical Fluid Mechanics*, **2014**, 16, 243-262	1.4	11
66	Dynamics of a two-prey one-predator system with Watt-type functional response and impulsive control strategy?. *Chaos, Solitons and Fractals*, **2009**, 40, 2392-2404	9.3	11
65	DYNAMICS OF A DIFFUSIVE PREDATOR□PREY MODEL WITH ADDITIVE ALLEE EFFECT. *International Journal of Biomathematics*, **2012**, 05, 1250023	1.8	11
64	Periodic solution of a stochastic HBV infection model with logistic hepatocyte growth. *Applied Mathematics and Computation*, **2017**, 293, 630-641	2.7	10
63	A Hand-Foot-and-Mouth Disease Model with Periodic Transmission Rate in Wenzhou, China. *Abstract and Applied Analysis*, **2014**, 2014, 1-11	0.7	10
62	Spatiotemporal Complexity of a Leslie-Gower Predator-Prey Model with the Weak Allee Effect. *Journal of Applied Mathematics*, **2013**, 2013, 1-16	1.1	10
61	An algorithm for solving DAEs with mechanization. *Applied Mathematics and Computation*, **2005**, 167, 1350-1372	2.7	10
60	Stochastic extinction and persistence of a parasite□host epidemiological model. *Physica A: Statistical Mechanics and Its Applications*, **2016**, 462, 586-602	3.3	10
59	Dynamics of a periodic Watt-type predator□prey system with impulsive effect. *Chaos, Solitons and Fractals*, **2009**, 39, 1270-1282	9.3	9
58	An algorithm for solving nonlinear singular perturbation problems with mechanization. *Applied Mathematics and Computation*, **2005**, 169, 995-1009	2.7	9

57	Conditional regularity for the 3D MHD equations in the critical Besov space. *Applied Mathematics Letters*, **2020**, 102, 106119	3.5	9
56	The fluctuation impact of human mobility on the influenza transmission. *Journal of the Franklin Institute*, **2020**, 357, 8899-8924	4	9
55	Modelling the effects of the contaminated environments on tuberculosis in Jiangsu, China. *Journal of Theoretical Biology*, **2021**, 508, 110453	2.3	9
54	Stochastic Extinction in an SIRS Epidemic Model Incorporating Media Coverage. *Abstract and Applied Analysis*, **2013**, 2013, 1-8	0.7	8
53	Allee-Effect-Induced Instability in a Reaction-Diffusion Predator-Prey Model. *Abstract and Applied Analysis*, **2013**, 2013, 1-10	0.7	8
52	Computer aided solving the high-order transition probability matrix of the finite Markov chain. *Applied Mathematics and Computation*, **2006**, 172, 267-285	2.7	8
51	Mechanical algorithm for solving the second kind of Volterra integral equation. *Applied Mathematics and Computation*, **2006**, 173, 1149-1162	2.7	8
50	Mechanization for solving SPP by reducing order method. *Applied Mathematics and Computation*, **2005**, 169, 1028-1037	2.7	8
49	Pattern formation in a reaction–diffusion parasite–host model. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 525, 732-740	3.3	7
48	Spatiotemporal Dynamics in a Reaction–Diffusion Epidemic Model with a Time-Delay in Transmission. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2015**, 25, 1550099	2	7
47	Dynamical Analysis of a Delayed Reaction-Diffusion Predator-Prey System. *Abstract and Applied Analysis*, **2012**, 2012, 1-23	0.7	7
46	Pattern Formation in a Cross-Diffusive Holling-Tanner Model. *Discrete Dynamics in Nature and Society*, **2012**, 2012, 1-12	1.1	7
45	A mechanical algorithm for solving ordinary differential equation. *Applied Mathematics and Computation*, **2006**, 172, 568-583	2.7	7
44	Turing patterns in a reaction–diffusion epidemic model. *International Journal of Biomathematics*, **2018**, 11, 1850025	1.8	6
43	Regularity Issue of the Navier-Stokes Equations Involving the Combination of Pressure and Velocity Field. *Acta Applicandae Mathematicae*, **2013**, 123, 99-112	1.1	6
42	Dynamics of a Michaelis–Menten-type predation model incorporating a prey refuge with noise and external forces. *Journal of Statistical Mechanics: Theory and Experiment*, **2012**, 2012, P03014	1.9	6
41	Dynamics of a parasite-host epidemiological model in spatial heterogeneous environment. *Discrete and Continuous Dynamical Systems - Series B*, **2015**, 20, 989-1013	1.3	6
40	Epidemics and underlying factors of multiple-peak pattern on hand, foot and mouth disease inWenzhou, China. *Mathematical Biosciences and Engineering*, **2019**, 16, 2168-2188	2.1	6

39	The dynamical complexity of an impulsive Watt-type prey–predator system. *Chaos, Solitons and Fractals*, **2009**, 40, 731-744	9.3	5
38	The Complex Dynamics of a Stochastic Predator-Prey Model. *Abstract and Applied Analysis*, **2012**, 2012, 1-24	0.7	5
37	Computations of multi-resultant with mechanization. *Applied Mathematics and Computation*, **2005**, 170, 237-257	2.7	5
36	Complex dynamics in an eco-epidemiological model with the cost of anti-predator behaviors. *Nonlinear Dynamics*, **2022**, 107, 3127	5	5
35	Endemic dynamics in a host–parasite epidemiological model within spatially heterogeneous environment. *Applied Mathematics Letters*, **2016**, 61, 129-136	3.5	5
34	Quantifying the improvement in confirmation efficiency of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) during the early phase of the outbreak in Hong Kong in 2020. *International Journal of Infectious Diseases*, **2020**, 96, 284-287	10.5	4
33	Positive steady states in an epidemic model with nonlinear incidence rate. *Computers and Mathematics With Applications*, **2018**, 75, 424-443	2.7	4
32	Traveling Wave Solutions in a Reaction-Diffusion Epidemic Model. *Abstract and Applied Analysis*, **2013**, 2013, 1-13	0.7	4
31	The Heterogeneous Severity of COVID-19 in African Countries: A Modeling Approach.. *Bulletin of Mathematical Biology*, **2022**, 84, 32	2.1	4
30	Global stability of the steady states of an epidemic model incorporating intervention strategies. *Mathematical Biosciences and Engineering*, **2017**, 14, 1071-1089	2.1	4
29	Impact of the Fear Effect on the Stability and Bifurcation of a Leslie–Gower Predator–Prey Model. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2020**, 30, 2050210	2	4
28	Non-constant positive steady states of a host-parasite model with frequency- and density-dependent transmissions. *Journal of the Franklin Institute*, **2020**, 357, 4392-4413	4	3
27	Global stability for an influenza transmission model incorporating human mobility behavior. *International Journal of Biomathematics*, **2017**, 10, 1750100	1.8	3
26	A stochastic epidemic model coupled with seasonal air pollution: analysis and data fitting. *Stochastic Environmental Research and Risk Assessment*, **2020**, 34, 2245-2257	3.5	3
25	A Spatial-Temporal ARMA Model of the Incidence of Hand, Foot, and Mouth Disease in Wenzhou, China. *Abstract and Applied Analysis*, **2014**, 2014, 1-9	0.7	2
24	Stationary Patterns of a Cross-Diffusion Epidemic Model. *Abstract and Applied Analysis*, **2013**, 2013, 1-10	0.7	2
23	The distribution models of grazing animals between two grassland resource points. *Applied Mathematics and Computation*, **2005**, 169, 1395-1404	2.7	2
22	Estimation of Local Novel Coronavirus (COVID-19) Cases in Wuhan, China from Off-Site Reported Cases and Population Flow Data from Different Sources. *Frontiers in Physics*, **2020**, 8,	3.9	2

21	On regularity of the 3D MHD equations based on one velocity component in anisotropic Lebesgue spaces. *Applied Mathematics Letters*, **2021**, 120, 107230	3.5	2
20	Optimal Control Strategies of HFMD in Wenzhou, China. *Complexity*, **2020**, 2020, 1-15	1.6	1
19	Age-Period-Cohort Analysis on the Time Trend of Hepatitis B Incidence in Four Prefectures of Southern Xinjiang, China from 2005 to 2017. *International Journal of Environmental Research and Public Health*, **2019**, 16,	4.6	1
18	The Existence of Positive Nonconstant Steady States in a Reaction: Diffusion Epidemic Model. *Abstract and Applied Analysis*, **2013**, 2013, 1-7	0.7	1
17	Blow-up Phenomena and Persistence Properties of Solutions to the Two-Component DGH Equation. *Abstract and Applied Analysis*, **2013**, 2013, 1-13	0.7	1
16	Bifurcation Analysis in a Delayed Diffusive Leslie-Gower Model. *Discrete Dynamics in Nature and Society*, **2013**, 2013, 1-11	1.1	1
15	Dynamics and asymptotic profiles of steady states of an SIRS epidemic model in spatially heterogenous environment. *Mathematical Biosciences and Engineering*, **2019**, 17, 893-909	2.1	1
14	On the Camassa□Holm system with one mean zero component. *Communications in Mathematical Sciences*, **2016**, 14, 517-534	1	1
13	A New Mechanical Algorithm for Calculating the Amplitude Equation of the Reaction-Diffusion Systems. *International Journal of Computational Models and Algorithms in Medicine*, **2012**, 3, 21-28		1
12	Estimating the time interval between transmission generations and the presymptomatic period by contact tracing surveillance data from 31 provinces in the mainland of China. *Fundamental Research* , **2021**, 1, 104-110		1
11	An analysis on the trend of AIDS/HIV incidence in Chongqing and Shenzhen, China from 2005-2015 based on Age-Period-Cohort model. *Mathematical Biosciences and Engineering*, **2021**, 18, 6961-6977	2.1	1
10	Bifurcation analysis and chaos control of a discrete-time prey-predator model with fear factor. *Mathematical Biosciences and Engineering*, **2022**, 19, 6659-6679	2.1	0
9	Dynamics of a stochastic HBV infection model with drug therapy and immune response. *Mathematical Biosciences and Engineering*, **2022**, 19, 7570-7585	2.1	0
8	Finite-Time Synchronization for a Class of Multiweighted Complex Networks with Markovian Switching and Time-Varying Delay. *Complexity*, **2020**, 2020, 1-25	1.6	
7	Advanced Nonlinear Dynamics of Population Biology and Epidemiology. *Abstract and Applied Analysis*, **2014**, 2014, 1-3	0.7	
6	Blowup Phenomena for a Modified Dullin-Gottwald-Holm Shallow Water System. *Abstract and Applied Analysis*, **2013**, 2013, 1-8	0.7	
5	Blow-Up of Solutions to a Novel Two-Component Rod System. *Abstract and Applied Analysis*, **2013**, 2013, 1-12	0.7	
4	A New Mechanical Algorithm for Calculating the Amplitude Equation of the Reaction-Diffusion Systems. *Advances in Bioinformatics and Biomedical Engineering Book Series*,205-213	0.4	

List of Publications

3	A New Mechanical Algorithm for Solving System of Fredholm Integral Equation Using Resolvent Method. *Lecture Notes in Computer Science*, **2008**, 744-754	0.9
2	Shrinkage in serial intervals across transmission generations of COVID-19. *Journal of Theoretical Biology*, **2021**, 529, 110861	2.3
1	Modelling COVID-19 outbreak on the Diamond Princess ship using the public surveillance data. *Infectious Disease Modelling*, **2022**, 7, 189-195	15.7