Malay Banerjee

List of Publications by Year
in descending order

107 papers	2,701 citations	201674 27 h-index	223800 46 g-index
115 all docs	115 docs citations	115 times ranked	1295 citing authors

#	Article	IF	Citations
1	A stochastic SIRS epidemic model with infectious force under intervention strategies. Journal of Differential Equations, 2015, 259, 7463-7502.	2.2	255
2	Bifurcation analysis of a ratio-dependent preyâ€“predator model with the Allee effect. Ecological Complexity, 2012, 11, 12-27.	2.9	169
3	Self-organised spatial patterns and chaos in a ratio-dependent predatorâ€“prey system. Theoretical Ecology, 2011, 4, 37-53.	1.0	125
4	A stochastic epidemic model incorporating media coverage. Communications in Mathematical Sciences, 2016, 14, 893-910.	1.0	96
5	Turing instabilities and spatio-temporal chaos in ratio-dependent Hollingâ€“Tanner model. Mathematical Biosciences, 2012, 236, 64-76.	1.9	85
6	Stochastic persistence and stationary distribution in a Hollingâ€“Tanner type preyâ€“predator model. Physica A: Statistical Mechanics and Its Applications, 2012, 391, 1216-1233.	2.6	76
7	On a quarantine model of coronavirus infection and data analysis. Mathematical Modelling of Natural Phenomena, 2020, 15, 24.	2.4	68
8	Modelling of phytoplankton allelopathy with Monodâ€“Haldane-type functional responseâ€"A mathematical study. BioSystems, 2009, 95, 243-253.	2.0	66
9	A phytoplanktonâ€“toxic phytoplanktonâ€“zooplankton model. Ecological Complexity, 2011, 8, 239-248.	2.9	66
10	Dynamical analysis of fractional-order modified logistic model. Computers and Mathematics With Applications, 2011, 62, 1098-1104.	2.7	52
11	Spatio-temporal pattern formation in Rosenzweigâ€“MacArthur model: Effect of nonlocal interactions. Ecological Complexity, 2017, 30, 2-10.	2.9	52
12	Maturation delay for the predators can enhance stable coexistence for a class of preyâ€“predator models. Journal of Theoretical Biology, 2017, 412, 154-171.	1.7	52
13	Complex Dynamics of a hostâ€“parasite model with both horizontal and vertical transmissions in a spatial heterogeneous environment. Nonlinear Analysis: Real World Applications, 2018, 40, 444-465.	1.7	51
14	Existence, uniqueness and stability analysis of allelopathic stimulatory phytoplankton model. Journal of Mathematical Analysis and Applications, 2010, 367, 249-259.	1.0	48
15	Existence and non-existence of spatial patterns in a ratio-dependent predatorâ€“prey model. Ecological Complexity, 2015, 21, 199-214.	2.9	45
16	Study of cross-diffusion induced Turing patterns in a ratio-dependent prey-predator model via amplitude equations. Applied Mathematical Modelling, 2018, 55, 383-399.	4.2	45
17	A delayed predatorâ€“prey model with strong Allee effect in prey population growth. Nonlinear Dynamics, 2012, 68, 23-42.	5.2	44
18	Long-term transients and complex dynamics of a stage-structured population with time delay and the Allee effect. Journal of Theoretical Biology, 2016, 396, 116-124.	1.7	44

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19	Bifurcation Analysis and Control of Leslieâ€“Gower Predatorâ€“Prey Model with Michaelisâ€“Menten Type Prey-Harvesting. Differential Equations and Dynamical Systems, 2012, 20, 339-366.	1.0	43
20	Dynamics of additional food provided predatorâ€“prey system with mutually interfering predators. Mathematical Biosciences, 2013, 246, 176-190.	1.9	43
21	Global dynamics of an additional food provided predatorâ€“prey system with constant harvest in predators. Applied Mathematics and Computation, 2015, 250, 193-211.	2.2	38
22	Almost periodic solution ofÂa non-autonomous model ofÂphytoplankton allelopathy. Nonlinear Dynamics, 2012, 67, 203-214.	5.2	32
23	Allee Effect in Prey versus Hunting Cooperation on Predator â€" Enhancement of Stable Coexistence. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2019, 29, 1950081.	1.7	32
24	Self-replication of spatial patterns in a ratio-dependent predatorâ€“prey model. Mathematical and Computer Modelling, 2010, 51, 44-52.	2.0	31
25	Social behavior-induced multistability in minimal competitive ecosystems. Journal of Theoretical Biology, 2018, 439, 24-38.	1.7	31
26	Hopf and steady state bifurcation analysis in a ratio-dependent predatorâ€“prey model. Communications in Nonlinear Science and Numerical Simulation, 2017, 44, 52-73.	3.3	30
27	Memory effect on Bazykinâ€™s prey-predator model: Stability and bifurcation analysis. Chaos, Solitons and Fractals, 2021, 143, 110531.	5.1	29
28	Detection of turing patterns in a three species food chain model via amplitude equation. Communications in Nonlinear Science and Numerical Simulation, 2019, 69, 219-236.	3.3	28
29	Allee effect in preyâ€™s growth reduces the dynamical complexity in prey-predator model with generalist predator. Applied Mathematical Modelling, 2021, 91, 768-790.	4.2	28
30	Spatiotemporal complexity in a predator--prey model with weak Allee effects. Mathematical Biosciences and Engineering, 2014, 11, 1247-1274.	1.9	28
31	Rich Global Dynamics in a Preyâ€“Predator Model with Allee Effect and Density Dependent Death Rate of Predator. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2015, 25, 1530007.	1.7	27
32	Complex dynamics of a three species prey-predator model with intraguild predation. Ecological Complexity, 2018, 34, 9-22.	2.9	27
33	Analysis of a Preyâ€“Predator Model with Non-local Interaction in the Prey Population. Bulletin of Mathematical Biology, 2018, 80, 906-925.	1.9	26
34	Effects of contaminants and trophic cascade regulation on food chain stability: Application to cadmium soil pollution on small mammals â€" Raptor systems. Ecological Modelling, 2018, 382, 33-42.	2.5	26
35	Stochastic modeling of phytoplankton allelopathy. Applied Mathematical Modelling, 2014, 38, 1583-1596.	4.2	24
36	Period doubling cascades of preyâ€“predator model with nonlinear harvesting and control of over exploitation through taxation. Communications in Nonlinear Science and Numerical Simulation, 2014, 19, 2382-2405.	3.3	23

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37	Immuno-epidemiological model of two-stage epidemic growth. Mathematical Modelling of Natural Phenomena, 2020, 15, 27.	2.4	23
38	Predator overcomes the Allee effect due to indirect preyâ€“taxis. Ecological Complexity, 2019, 39, 100772.	2.9	21
39	A Primary Infection Model for HIV and Immune response with Two Discrete Time Delays. Differential Equations and Dynamical Systems, 2010, 18, 385-399.	1.0	20
40	Delay driven spatiotemporal chaos in single species population dynamics models. Theoretical Population Biology, 2016, 110, 51-62.	1.1	20
41	Stationary, non-stationary and invasive patterns for a prey-predator system with additive Allee effect in prey growth. Ecological Complexity, 2018, 36, 206-217.	2.9	20
42	Rich Bifurcation Structure of Preyâ€“Predator Model Induced by the Allee Effect in the Growth of Generalist Predator. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050084.	1.7	20
43	Influence of discrete delay on pattern formation in a ratio-dependent preyâ€“predator model. Chaos, Solitons and Fractals, 2014, 67, 73-81.	5.1	19
44	Modelling the Effect of Incubation and Latent Periods on the Dynamics of Vector-Borne Plant Viral Diseases. Bulletin of Mathematical Biology, 2020, 82, 94.	1.9	18
45	Extended SEIQR type model for COVID-19 epidemic and data analysis. Mathematical Biosciences and Engineering, 2017, 17, 7562-7604.	1.9	18
46	Stochastic dynamics of feline immunodeficiency virus within cat populations. Journal of the Franklin Institute, 2016, 353, 4191-4212.	3.4	17
47	Dynamics of a Diffusive Two-Prey-One-Predator Model with Nonlocal Intra-Specific Competition for Both the Prey Species. Mathematics, 2020, 8, 101.	2.2	17
48	Stage-structured ratio-dependent predatorâ€“prey models revisited: When should the maturation lag result in systemsâ€™ destabilization?. Ecological Complexity, 2014, 19, 23-34.	2.9	15
49	A comparative study of deterministic and stochastic dynamics for a non-autonomous allelopathic phytoplankton model. Applied Mathematics and Computation, 2014, 238, 300-318.	2.2	15
50	Spatial behavioural responses to the spread of an infectious disease can suppress Turing and Turingâ€“Hopf patterning of the disease. Physica A: Statistical Mechanics and Its Applications, 2020, 545, 123773.	2.6	15
51	Coronavirus â€“ Scientific insights and societal aspects. Mathematical Modelling of Natural Phenomena, 2020, 15, E2.	2.4	15
52	Turing instability in an economicâ€“demographic dynamical system may lead to pattern formation on a geographical scale. Journal of the Royal Society Interface, 2021, 18, 20210034.	3.4	15
53	Relaxation oscillation and canard explosion in a slowâ€“fast predatorâ€“prey model with Beddingtonâ€“DeAngelis functional response. Nonlinear Dynamics, 2021, 103, 1195-1217.	5.2	15
54	Stochastic persistence and stability analysis of a modified Hollingâ€“Tanner model. Mathematical Methods in the Applied Sciences, 2013, 36, 1263-1280.	2.3	14

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55	Effect of kernels on spatio-temporal patterns of a non-local prey-predator model. Mathematical Biosciences, 2019, 310, 96-107.	1.9	14
56	Stability of Hopf-bifurcating limit cycles in a diffusion-driven prey-predator system with Allee effect and time delay. Mathematical Biosciences and Engineering, 2019, 16, 2411-2446.	1.9	14
57	Spatial pattern formation in ratio-dependent model: higher-order stability analysis. Mathematical Medicine and Biology, 2011, 28, 111-128.	1.2	13
58	Global dynamics of a prey-predator model with Allee effect and additional food for the predators. International Journal of Dynamics and Control, 2017, 5, 903-916.	2.5	13
59	DETERMINISTIC CHAOS VERSUS STOCHASTIC OSCILLATION IN A PREY-PREDATOR-TOP PREDATOR MODEL. Mathematical Modelling and Analysis, 2011, 16, 343-364.	1.5	12
60	Effects of density dependent cross-diffusion on the chaotic patterns in a ratio-dependent prey-predator model. Ecological Complexity, 2018, 36, 276-289.	2.9	12
61	Prey-Predator Model with a Nonlocal Bistable Dynamics of Prey. Mathematics, 2018, 6, 41.	2.2	12
62	Spatiotemporal pattern formation in 2D prey-predator system with nonlocal intraspecific competition. Communications in Nonlinear Science and Numerical Simulation, 2021, 93, 105478.	3.3	12
63	Vaccination in a two-group epidemic model. Applied Mathematics Letters, 2021, 119, 107197.	2.7	12
64	Bifurcation analysis of the predatorâ€“prey model with the Allee effect in the predator. Journal of Mathematical Biology, 2022, 84, 7.	1.9	12
65	The dynamics of two-species allelopathic competition with optimal harvesting. Journal of Biological Dynamics, 2012, 6, 674-694.	1.7	11
66	Analytical Computation of Electric Field for Onset of Electroporation. Journal of Computational and Theoretical Nanoscience, 2012, 9, 137-143.	0.4	11
67	Effects of boundary conditions on pattern formation in a nonlocal preyâ€“predator model. Applied Mathematical Modelling, 2020, 79, 809-823.	4.2	11
68	Immuno-epidemiological model-based prediction of further COVID-19 epidemic outbreaks due to immunity waning. Mathematical Modelling of Natural Phenomena, 0, , .	2.4	11
69	Turing and Non-Turing Patterns in Two-Dimensional Prey-Predator Models. Understanding Complex Systems, 2015, , 257-280.	0.6	10
70	Approximated Spiral and Target Patterns in Bazykinâ€™s Preyâ€“Predator Model: Multiscale Perturbation Analysis. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1750038.	1.7	10
71	Feedforward Control of Plant Nitrate Transporter NRT1.1 Biphasic Adaptive Activity. Biophysical Journal, 2020, 118, 898-908.	0.5	10
72	Oscillations and Pattern Formation in a Slowâ€“Fast Preyâ€“Predator System. Bulletin of Mathematical Biology, 2021, 83, 110.	1.9	10

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73	Hunting cooperation among slowly diffusing specialist predators can induce stationary Turing patterns. Physica A: Statistical Mechanics and Its Applications, 2022, 599, 127417.	2.6	10
74	Effect of stochastic perturbation on a two species competitive model. Nonlinear Analysis: Hybrid Systems, 2009, 3, 195-206.	3.5	9
75	DYNAMICAL MODEL OF IN-HOST HIV INFECTION: WITH DRUG THERAPY AND MULTI VIRAL STRAINS. Journal of Biological Systems, 2012, 20, 303-325.	1.4	9
76	Time delay can enhance spatio-temporal chaos in a preyâ€“predator model. Ecological Complexity, 2016, 27, 17-28.	2.9	9
77	Canards, relaxation oscillations, and pattern formation in a slow-fast ratio-dependent predator-prey system. Applied Mathematical Modelling, 2022, 109, 519-535.	4.2	9
78	Top-down control in a patchy environment: Revisiting the stabilizing role of food-dependent predator dispersal. Theoretical Population Biology, 2012, 81, 9-19.	1.1	8
79	An Epidemic Model with Time-Distributed Recovery and Death Rates. Bulletin of Mathematical Biology, 2022, 84, .	1.9	8
80	Effect of small time delay in a predator-prey model within random environment. Differential Equations and Dynamical Systems, 2008, 16, 225-250.	1.0	7
81	Deterministic and Stochastic Dynamics of a Competitive Phytoplankton Model with Allelopathy. Differential Equations and Dynamical Systems, 2013, 21, 341-372.	1.0	7
82	Size-dependent diffusion promotes the emergence of spatiotemporal patterns. Physical Review E, 2014, 90, 012904.	2.1	6
83	Stabilizing effect of intra-specific competition on prey-predator dynamics with intraguild predation. Mathematical Modelling of Natural Phenomena, 2018, 13, 29.	2.4	6
84	Nonlocal Reactionâ€“Diffusion Models of Heterogeneous Wealth Distribution. Mathematics, 2021, 9, 351.	2.2	6
85	Pattern Formation in a Three-Species Cyclic Competition Model. Bulletin of Mathematical Biology, 2021, 83, 52.	1.9	6
86	Epidemic progression and vaccination in a heterogeneous population. Application to the Covid-19 epidemic. Ecological Complexity, 2021, 47, 100940.	2.9	6
87	Effect of Slowâ€“Fast Time Scale on Transient Dynamics in a Realistic Prey-Predator System. Mathematics, 2022, 10, 699.	2.2	6
88	Slowâ€“fast analysis of a modified Leslieâ€“Gower model with Holling type I functional response. Nonlinear Dynamics, 2022, 108, 4531-4555.	5.2	6
89	Global regulation of individual decisionÂmaking. Mathematical Methods in the Applied Sciences, 2016, 39, 4428-4436.	2.3	5
90	Comparison of hidden and explicit resources in ecoepidemic models of predatorâ€“prey type. Computational and Applied Mathematics, 2020, 39, 1.	2.2	5

#	ARTICLE	IF	CITATIONS
91	Spatiotemporal pattern formation in a preyâ€“predator model with generalist predator. Mathematical Modelling of Natural Phenomena, 2022, 17, 6.	2.4	5
92	Noise induced oscillations in time delayed semiconductor laser system. Optics Communications, 2012, 285, 2402-2409.	2.1	4
93	Dynamical behaviour of a generalist predator-prey model with free boundary. Boundary Value Problems, 2017, 2017, .	0.7	4
94	Spatio-Temporal Pattern Formation in Hollingâ€“Tanner Type Model with Nonlocal Consumption of Resources. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2019, 29, 1930002.	1.7	4
95	A safe harbor can protect an endangered species from its predators. Ricerche Di Matematica, 2020, 69, 413-436.	1.0	4
96	Analytical and numerical detection of traveling wave and wave-train solutions in a preyâ€“predator model with weak Allee effect. Nonlinear Dynamics, 2020, 100, 2989-3006.	5.2	4
97	The Origin of Species by Means of Mathematical Modelling. Acta Biotheoretica, 2018, 66, 333-344.	1.5	3
98	Delayed feedback induced complex dynamics in an Escherichia coli and Tetrahymena system. Nonlinear Dynamics, 2018, 94, 1447-1466.	5.2	3
99	Spatio-temporal Bazykinâ€™s model with space-time nonlocality. Mathematical Biosciences and Engineering, 2020, 17, 4801-4824.	1.9	3
100	Epidemic model with strain-dependent transmission rate. Communications in Nonlinear Science and Numerical Simulation, 2022, 114, 106641.	3.3	3
101	Spatiotemporal pattern formation in a prey-predator model under environmental driving forces. Journal of Physics: Conference Series, 2015, 638, 012004.	0.4	2
102	Comments on â€œL. N. Guin, M. Haque, P. K. Mandal, The spatial patterns through diffusion-driven instability in a predatorâ€“prey model, Appl. Math. Model. 36 (2012) 1825â€“1841.â€• Applied Mathematical Modelling, 2015, 39, 297-299.	4.2	2
103	Comparing predatorâ€“prey models with hidden and explicit resources. Annali Dell'Universita Di Ferrara, 2018, 64, 259-283.	1.3	2
104	A Backward Technique for Demographic Noise in Biological Ordinary Differential Equation Models. Mathematics, 2019, 7, 1204.	2.2	2
105	Cross-diffusion induced Turing and non-Turing patterns in Rosenzweigâ€“MacArthur model. Letters in Biomathematics, 0, , 1-22.	0.1	1
106	Pattern Formation in a Prey-Predator Model with Nonlocal Interaction Terms. Springer Proceedings in Mathematics and Statistics, 2016, , 27-39.	0.2	1
107	Comments on â€œJ. Dhar, R.S. Baghel, A.K. Sharma, Role of instant nutrient replenishment on plankton dynamics with diffusion in a closed system: A pattern formation, Appl. Math. Comput. 218 (2012) 8925â€“8936â€• Applied Mathematics and Computation, 2014, 232, 771-774.	2.2	0