George Cosner

List of Publications by Year in descending order

104 papers	4,638 citations	159585 30 h-index	118850 62 g-index
110 all docs	110 docs citations	110 times ranked	2860 citing authors

#	Article	IF	Citations
1	How Habitat Edges Change Species Interactions. American Naturalist, 1999, 153, 165-182.	2.1	503
2	Effects of Spatial Grouping on the Functional Response of Predators. Theoretical Population Biology, 1999, 56, 65-75.	1.1	414
3	On the Dynamics of Predatorâ€"Prey Models with the Beddingtonâ€"DeAngelis Functional Response. Journal of Mathematical Analysis and Applications, 2001, 257, 206-222.	1.0	312
4	Diffusive logistic equations with indefinite weights: population models in disrupted environments. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1989, 112, 293-318.	1.2	183
5	Stable Coexistence States in the Volterraâ€"Lotka Competition Model with Diffusion. SIAM Journal on Applied Mathematics, 1984, 44, 1112-1132.	1.8	150
6	Threshold behavior and propagation for nonlinear differential-difference systems motivated by modeling myelinated axons. Quarterly of Applied Mathematics, 1984, 42, 1-14.	0.7	143
7	Diffusive Logistic Equations with Indefinite Weights: Population Models in Disrupted Environments II. SIAM Journal on Mathematical Analysis, 1991, 22, 1043-1064.	1.9	137
8	Movement toward better environments and the evolution of rapid diffusion. Mathematical Biosciences, 2006, 204, 199-214.	1.9	115
9	Advection-mediated coexistence of competing species. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2007, 137, 497-518.	1.2	110
10	Evolution of dispersal and the ideal free distribution. Mathematical Biosciences and Engineering, 2010, 7, 17-36.	1.9	105
11	Reaction-diffusion-advection models for the effects and evolution of dispersal. Discrete and Continuous Dynamical Systems, 2014, 34, 1701-1745.	0.9	103
12	On the effects of spatial heterogeneity on the persistence of interacting species. Journal of Mathematical Biology, 1998, 37, 103-145.	1.9	91
13	Does movement toward better environments always benefit a population?. Journal of Mathematical Analysis and Applications, 2003, 277, 489-503.	1.0	90
14	The ideal free distribution as an evolutionarily stable strategy. Journal of Biological Dynamics, 2007, 1, 249-271.	1.7	75
15	How climate extremesâ€"not meansâ€"define a species' geographic range boundary via a demographic tipping point. Ecological Monographs, 2014, 84, 131-149.	5.4	67
16	Perceptual Ranges, Information Gathering, and Foraging Success in Dynamic Landscapes. American Naturalist, 2017, 189, 474-489.	2.1	67
17	Approximating the ideal free distribution via reactionâ€"diffusionâ€"advection equations. Journal of Differential Equations, 2008, 245, 3687-3703.	2.2	66
18	A dynamic model for the ideal-free distribution as a partial differential equation. Theoretical Population Biology, 2005, 67, 101-108.	1.1	62

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19	Evolutionary stability of ideal free dispersal strategies in patchy environments. Journal of Mathematical Biology, 2012, 65, 943-965.	1.9	57
20	Competitive reversals inside ecological reserves: the role of external habitat degradation. Journal of Mathematical Biology, 1998, 37, 491-533.	1.9	56
21	Should a Park Be an Island?. SIAM Journal on Applied Mathematics, 1993, 53, 219-252.	1.8	52
22	Fish population dynamics in a seasonally varying wetland. Ecological Modelling, 2010, 221, 1131-1137.	2.5	48
23	Variability, vagueness and comparison methods for ecological models. Bulletin of Mathematical Biology, 1996, 58, 207-246.	1.9	45
24	Evolutionary stability of ideal free nonlocal dispersal. Journal of Biological Dynamics, 2012, 6, 395-405.	1.7	42
25	Global Bifurcation of Solutions for Crime Modeling Equations. SIAM Journal on Mathematical Analysis, 2012, 44, 1340-1358.	1.9	42
26	Spatial Heterogeneity and Critical Patch Size: Area Effects via Diffusion in Closed Environments. Journal of Theoretical Biology, 2001, 209, 161-171.	1.7	41
27	How Resource Phenology Affects Consumer Population Dynamics. American Naturalist, 2016, 187, 151-166.	2.1	39
28	Density Dependent Behavior at Habitat Boundaries and the Allee Effect. Bulletin of Mathematical Biology, 2007, 69, 2339-2360.	1.9	38
29	Practical persistence in ecological models via comparison methods. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1996, 126, 247-272.	1.2	37
30	Control of invasive hosts by generalist parasitoids. Mathematical Medicine and Biology, 2008, 25, 1-20.	1.2	37
31	Rapid changes in seed dispersal traits may modify plant responses to global change. AoB PLANTS, 2019, 11, plz020.	2.3	32
32	On the effects of nonlinear boundary conditions in diffusive logistic equations on bounded domains. Journal of Differential Equations, 2006, 231, 768-804.	2.2	31
33	Modeling the Spatial Spread of Rift Valley Fever in Egypt. Bulletin of Mathematical Biology, 2013, 75, 523-542.	1.9	30
34	Positive solutions for superlinear elliptic systems without variational structure. Nonlinear Analysis: Theory, Methods & Applications, 1984, 8, 1427-1436.	1.1	29
35	Leadership, social learning, and the maintenance (or collapse) of migratory populations. Theoretical Ecology, 2012, 5, 253-264.	1.0	27
36	Reproductive Asynchrony in Spatial Population Models: How Mating Behavior Can Modulate Allee Effects Arising from Isolation in Both Space and Time. American Naturalist, 2010, 175, 362-373.	2.1	26

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37	Modelling the Effects of Seasonality and Socioeconomic Impact on the Transmission of Rift Valley Fever Virus. PLoS Neglected Tropical Diseases, 2015, 9, e3388.	3.0	26
38	Habitat edges and predatorâ€"prey interactions: effects on critical patch size. Mathematical Biosciences, 2002, 175, 31-55.	1.9	25
39	Random dispersal versus fitness-dependent dispersal. Journal of Differential Equations, 2013, 254, 2905-2941.	2.2	24
40	A Modeling Approach to Investigate Epizootic Outbreaks and Enzootic Maintenance of Rift Valley Fever Virus. Bulletin of Mathematical Biology, 2014, 76, 2052-2072.	1.9	24
41	Modeling and control of local outbreaks of West Nile virus in the United States. Discrete and Continuous Dynamical Systems - Series B, 2016, 21, 2423-2449.	0.9	24
42	Phenologically explicit models for studying plantâ€"pollinator interactions under climate change. Theoretical Ecology, 2014, 7, 289-297.	1.0	23
43	Models for the effects of host movement in vector-borne disease systems. Mathematical Biosciences, 2015, 270, 192-197.	1.9	21
44	Brucellosis, botflies, and brainworms: the impact of edge habitats on pathogen transmission and species extinction. Journal of Mathematical Biology, 2001, 42, 95-119.	1.9	20
45	Interspecific interactions and range limits: contrasts among interaction types. Theoretical Ecology, 2017, 10, 167-179.	1.0	20
46	Well-posedness and qualitative properties of a dynamical model for the ideal free distribution. Journal of Mathematical Biology, 2014, 69, 1343-1382.	1.9	19
47	Interspecific Variation in Critical Patch Size and Gapâ€Crossing Ability as Determinants of Geographic Range Size Distributions. American Naturalist, 2009, 173, 363-375.	2.1	18
48	Conditional persistence in logistic models via nonlinear diffusion. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2002, 132, 267-281.	1.2	17
49	A Continuum Formulation of the Ideal Free Distribution and Its Implications for Population Dynamics. Theoretical Population Biology, 2002, 61, 277-284.	1.1	17
50	Multiple Reversals of Competitive Dominance in Ecological Reserves via External Habitat Degradation. Journal of Dynamics and Differential Equations, 2004, 16, 973-1010.	1.9	17
51	Global bifurcation of solutions to diffusive logistic equations on bounded domains subject to nonlinear boundary conditions. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2009, 139, 45-56.	1.2	17
52	Habitat fragmentation promotes malaria persistence. Journal of Mathematical Biology, 2019, 79, 2255-2280.	1.9	17
53	Improved foraging by switching between diffusion and advection: benefits from movement that depends on spatial context. Theoretical Ecology, 2020, 13, 127-136.	1.0	17
54	Evolution of natal dispersal in spatially heterogenous environments. Mathematical Biosciences, 2017, 283, 136-144.	1.9	16

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55	Bifurcation from higher eigenvalues in nonlinear elliptic equations: Continua that meet infinity. Nonlinear Analysis: Theory, Methods & Applications, 1988, 12, 271-277.	1.1	15
56	Challenges in modeling biological invasions and population distributions in a changing climate. Ecological Complexity, 2014, 20, 258-263.	2.9	15
57	Dynamics of populations with individual variation in dispersal on bounded domains. Journal of Biological Dynamics, 2018, 12, 288-317.	1.7	15
58	Evolutionary stability of ideal free dispersal under spatial heterogeneity and time periodicity. Mathematical Biosciences, 2018, 305, 71-76.	1.9	15
59	Title is missing!. Indiana University Mathematics Journal, 1981, 30, 607.	0.9	15
60	Ideal Free Dispersal under General Spatial Heterogeneity and Time Periodicity. SIAM Journal on Applied Mathematics, 2021, 81, 789-813.	1.8	14
61	Resident-invader dynamics in infinite dimensional systems. Journal of Differential Equations, 2017, 263, 4565-4616.	2.2	13
62	Modeling the importation and local transmission of vector-borne diseases in Florida: The case of Zika outbreak in 2016. Journal of Theoretical Biology, 2018, 455, 342-356.	1.7	12
63	Evolution of dispersal in spatial population models with multiple timescales. Journal of Mathematical Biology, 2020, 80, 3-37.	1.9	12
64	Two-patch model for the spread of West Nile virus. Bulletin of Mathematical Biology, 2018, 80, 840-863.	1.9	11
65	On a competitive system with ideal free dispersal. Journal of Differential Equations, 2018, 265, 3464-3493.	2.2	11
66	Asymptotic behavior of solutions of second order parabolic partial differential equations with unbounded coefficients. Journal of Differential Equations, 1980, 35, 407-428.	2.2	10
67	A priori bounds for positive solutions of a semilinear elliptic equation. Proceedings of the American Mathematical Society, 1985, 95, 47-47.	0.8	10
68	On the development of functionals which satisfy a maximum principle. Applicable Analysis, 1987, 26, 45-60.	1.3	10
69	Variability, vagueness and comparison methods for ecological models. Bulletin of Mathematical Biology, 1996, 58, 207-246.	1.9	10
70	Title is missing!. Indiana University Mathematics Journal, 1985, 34, 517.	0.9	10
71	A comparison principle for a class of fourth-order elliptic operators. Journal of Mathematical Analysis and Applications, 1987, 128, 488-494.	1.0	9
72	On the definition of ellipticity for systems of partial differential equations. Journal of Mathematical Analysis and Applications, 1991, 158, 80-93.	1.0	9

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73	Transmission Dynamics of Rift Valley Fever Virus: Effects of Live and Killed Vaccines on Epizootic Outbreaks and Enzootic Maintenance. Frontiers in Microbiology, 2016, 6, 1568.	3.5	9
74	Systems of second order equations with nonnegative characteristic form. Communications in Partial Differential Equations, 1979, 4, 701-737.	2.2	8
75	Optimization of the First Eigenvalue of Equations with Indefinite Weights. Advanced Nonlinear Studies, 2013, 13, 79-95.	1.7	8
76	A model for the coupling of the Greater Bairam and local environmental factors in promoting Rift-Valley Fever epizootics in Egypt. Public Health, 2016, 130, 64-71.	2.9	8
77	Evolutionarily stable movement strategies in reactionâ€"diffusion models with edge behavior. Journal of Mathematical Biology, 2020, 80, 61-92.	1.9	8
78	Populations with individual variation in dispersal in heterogeneous environments: Dynamics and competition with simply diffusing populations. Science China Mathematics, 2020, 63, 441-464.	1.7	8
79	Persistence for a Two-Stage Reaction-Diffusion System. Mathematics, 2020, 8, 396.	2.2	8
80	Stability properties of a model of parallel nerve fibers. Journal of Differential Equations, 1981, 40, 303-315.	2.2	7
81	Sign-definite solutions in some linear elliptic systems. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 1989, 111, 347-358.	1.2	7
82	A comparison of foraging strategies in a patchy environment. Mathematical Biosciences, 1999, 160, 25-46.	1.9	6
83	The Effect of Directed Movement on the Strong Allee Effect. SIAM Journal on Applied Mathematics, 2021, 81, 407-433.	1.8	6
84	Solutions for a Flux-Dependent Diffusion Model. SIAM Journal on Mathematical Analysis, 1982, 13, 758-769.	1.9	5
85	Existence of Global Solutions to a Model of a Myelinated Nerve Axon. SIAM Journal on Mathematical Analysis, 1987, 18, 703-710.	1.9	5
86	PRACTICAL PERSISTENCE IN DIFFUSIVE FOOD CHAIN MODELS. Natural Resource Modelling, 1998, 11, 21-34.	2.0	5
87	On the generalized spectrum for second-order elliptic systems. Transactions of the American Mathematical Society, 1987, 303, 345-345.	0.9	5
88	Pointwise Bounds for Strongly Coupled Time Dependent Systems of Reaction-Diffusion Equations. SIAM Journal on Mathematical Analysis, 1984, 15, 350-356.	1.9	4
89	Threshold Conditions for Two Diffusion Models Suggested By Nerve Impulse Conduction. SIAM Journal on Applied Mathematics, 1986, 46, 844-855.	1.8	4
90	Wave-Like Solutions to Reaction-Diffusion Equations on a Cylinder: Dependence on Cylinder Width. SIAM Journal on Applied Mathematics, 1987, 47, 534-543.	1.8	4

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91	Estimates for eigenfunctions and eigenvalues of nonlinear elliptic problems. Transactions of the American Mathematical Society, 1984, 282, 59-59.	0.9	4
92	Early detection of declining populations using floor and ceiling models. Journal of Animal Ecology, 2001, 70, 906-914.	2.8	3
93	On the convex case in the positone problem for elliptic systems. Nonlinear Analysis: Theory, Methods & Applications, 1988, 12, 827-853.	1.1	2
94	Transport Equations with Second-Order Differential Collision Operators. SIAM Journal on Mathematical Analysis, 1988, 19, 797-813.	1.9	2
95	Ideal free dispersal in integrodifference models. Journal of Mathematical Biology, 2022, 85, .	1.9	2
96	Some estimates of the norm of solutions of nonlinear elliptic eigenvalue problems. Applicable Analysis, 1984, 18, 101-109.	1.3	1
97	Linear Growth Models for a Single Species: Averaging Spatial Effects via Eigenvalues. , 2003, , 89-139.		1
98	Spatial Heterogeneity in Reaction-Diffusion Models for Two Competing Species. , 2003, , 295-349.		1
99	Beyond Diffusion: Conditional Dispersal in Ecological Models. Fields Institute Communications, 2013, , 305-317.	1.3	1
100	A Priori Estimates in Nonlinear Eigenvalue Problems for Elliptic Systems. North-Holland Mathematics Studies, 1984, 92, 123-129.	0.2	0
101	Density Dependent Single-Species Models. , 2003, , 141-198.		0
102	Permanence. , 2003, , 199-244.		0
103	Beyond Permanence: More Persistence Theory. , 2003, , 245-294.		0
104	Nonmonotone Systems. , 2003, , 351-394.		0