Frederick R Adler

List of Publications by Year
in descending order

96 papers	5,892 citations	81839 39 h-index	79644 73 g-index
103 all docs	103 docs citations	103 times ranked	7535 citing authors

#	Article	IF	Citations
1	Predictive 5-Year Survivorship Model of Cystic Fibrosis. American Journal of Epidemiology, 2001, 153, 345-352.	1.6	647
2	Water transport in plants obeys Murray's law. Nature, 2003, 421, 939-942.	13.7	365
3	A comprehensive evaluation of predictive performance of 33 species distribution models at species and community levels. Ecological Monographs, 2019, 89, e01370.	2.4	290
4	How to make a Biological Switch. Journal of Theoretical Biology, 2000, 203, 117-133.	0.8	274
5	Community Surveillance of Respiratory Viruses Among Families in the Utah Better Identification of Germs-Longitudinal Viral Epidemiology (BIG-LoVE) Study. Clinical Infectious Diseases, 2015, 61, 1217-1224.	2.9	193
6	Lung Transplantation and Survival in Children with Cystic Fibrosis. New England Journal of Medicine, 2007, 357, 2143-2152.	13.9	186
7	Kinetics of Coinfection with Influenza A Virus and Streptococcus pneumoniae. PLoS Pathogens, 2013, 9, e1003238.	2.1	184
8	Evolution of Virulence: a Unified Framework for Coinfection and Superinfection. Journal of Theoretical Biology, 1998, 195, 293-313.	0.8	174
9	Defended Fortresses or Moving Targets? Another Model of Inducible Defenses Inspired by Military Metaphors. American Naturalist, 1994, 144, 813-832.	1.0	169
10	Testing the â€˜rare pitâ€™ hypothesis for xylem cavitation resistance in three species of Acer. New Phytologist, 2009, 182, 664-674.	3.5	153
11	Genetic basis for systems of skeletal quantitative traits: Principal component analysis of the canid skeleton. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 9930-9935.	3.3	151
12	Use of Lung Transplantation Survival Models to Refine Patient Selection in Cystic Fibrosis. American Journal of Respiratory and Critical Care Medicine, 2005, 171, 1053-1059.	2.5	127
13	Inducible defenses, phenotypic variability and biotic environments. Trends in Ecology and Evolution, 1990, 5, 407-410.	4.2	118
14	Using opportunistic citizen science data to estimate avian population trends. Biological Conservation, 2018, 221, 151-159.	1.9	107
15	Mathematical model of a three-stage innate immune response to a pneumococcal lung infection. Journal of Theoretical Biology, 2011, 276, 106-116.	0.8	104
16	Information Collection and Spread by Networks of Patrolling Ants. American Naturalist, 1992, 140, 373-400.	1.0	102
17	GENETIC AND PHYLOGENETIC CONSEQUENCES OF ISLAND BIOGEOGRAPHY. Evolution; International Journal of Organic Evolution, 2000, 54, 387-396.	1.1	102
18	Arabidopsis mRNA decay landscape arises from specialized RNA decay substrates, decapping-mediated feedback, and redundancy. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E1485-E1494.	3.3	102

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19	IS SPACE NECESSARY? INTERFERENCE COMPETITION AND LIMITS TO BIODIVERSITY. Ecology, 2000, 81, 3226-3232.	1.5	96
20	When do localized natural enemies increase species richness?. Ecology Letters, 2005, 8, 438-447.	3.0	89
21	To fight or not to fight: context-dependent interspecific aggression in competing ants. Animal Behaviour, 2009, 77, 297-305.	0.8	80
22	An accurate two-phase approximate solution to an acute viral infection model. Journal of Mathematical Biology, 2010, 60, 711-726.	0.8	75
23	Migration Alone Can Produce Persistence of Host-Parasitoid Models. American Naturalist, 1993, 141, 642-650.	1.0	72
24	Interaction between the X chromosome and an autosome regulates size sexual dimorphism in Portuguese Water Dogs. Genome Research, 2005, 15, 1820-1824.	2.4	69
25	Optimization, Conflict, and Nonoverlapping Foraging Ranges in Ants. American Naturalist, 2003, 162, 529-543.	1.0	68
26	Effect of 1918 PB1-F2 Expression on Influenza A Virus Infection Kinetics. PLoS Computational Biology, 2011, 7, e1001081.	1.5	67
27	Lung Transplantation for Cystic Fibrosis. Proceedings of the American Thoracic Society, 2009, 6, 619-633.	3.5	65
28	Stumped by Trees? A Generalized Null Model for Patterns of Organismal Diversity. American Naturalist, 1995, 145, 329-342.	1.0	64
29	Is Space Necessary? Interference Competition and Limits to Biodiversity. Ecology, 2000, 81, 3226.	1.5	63
30	Gene Genealogies Strongly Distorted by Weakly Interfering Mutations in Constant Environments. Genetics, 2010, 184, 529-545.	1.2	62
31	Urban ecology: advancing science and society. Frontiers in Ecology and the Environment, 2014, 12, 574-581.	1.9	60
32	Circulating immune cell phenotype dynamics reflect the strength of tumorâ€“immune cell interactions in patients during immunotherapy. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16072-16082.	3.3	60
33	Cross-immunity between strains explains the dynamical pattern of paramyxoviruses. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13396-13400.	3.3	58
34	Mathematical modeling of liver injury and dysfunction after acetaminophen overdose: Early discrimination between survival and death. Hepatology, 2012, 56, 727-734.	3.6	57
35	A Continuous-State Coalescent and the Impact of Weak Selection on the Structure of Gene Genealogies. Molecular Biology and Evolution, 2010, 27, 1162-1172.	3.5	51
36	How Host Population Dynamics Translate into Time-Lagged Prevalence: An Investigation of Sin Nombre Virus in Deer Mice. Bulletin of Mathematical Biology, 2008, 70, 236-252.	0.9	46

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37	Monitoring the world's bird populations with community science data. Biological Conservation, 2020, 248, 108653.	1.9	46
38	Microbial Interactions in the Cystic Fibrosis Airway. Journal of Clinical Microbiology, 2018, 56, .	1.8	45
39	Citizen science in ecology: a place for humans in nature. Annals of the New York Academy of Sciences, 2020, 1469, 52-64.	1.8	44
40	Induced resistance to herbivores and the information content of early season attack. Oecologia, 1996, 107, 379-385.	0.9	43
41	HOW VIRULENT SHOULD A PARASITE BE TO ITS VECTOR?. Ecology, 2003, 84, 2568-2574.	1.5	43
42	Southern right whale (Eubalaena australis) calf mortality at PenÃnsula ValdÃ©s, Argentina: Are harmful algal blooms to blame?. Marine Mammal Science, 2016, 32, 423-451.	0.9	42
43	Mechanisms of pollen deposition by insect pollinators. Evolutionary Ecology, 1995, 9, 304-317.	0.5	40
44	The effects of averaging on the basic reproduction ratio. Mathematical Biosciences, 1992, 111, 89-98.	0.9	39
45	A General Test for Interaction Modification. Ecology, 1994, 75, 1552-1559.	1.5	39
46	Quantitative Models of the Dose-Response and Time Course of Inhalational Anthrax in Humans. PLoS Pathogens, 2013, 9, e1003555.	2.1	38
47	Diffuse coevolution in plant-herbivore communities. Theoretical Population Biology, 1990, 37, 171-191.	0.5	34
48	Serial single-cell genomics reveals convergent subclonal evolution of resistance as patients with early-stage breast cancer progress on endocrine plus CDK4/6 therapy. Nature Cancer, 2021, 2, 658-671.	5.7	34
49	The relationship between species richness and ecosystem variability is shaped by the mechanism of coexistence. Ecology Letters, 2017, 20, 958-968.	3.0	32
50	Convergence in leaf size versus twig leaf area scaling: do plants optimize leaf area partitioning?. Annals of Botany, 2017, 119, 447-456.	1.4	30
51	The dynamics of simultaneous infections with altered susceptibilities. Theoretical Population Biology, 1991, 40, 369-410.	0.5	29
52	Deconvolution of isotope signals from bundles of multiple hairs. Oecologia, 2014, 175, 781-789.	0.9	29
53	Identification of Pauses during Formation of HIV-1 Virus Like Particles. Biophysical Journal, 2013, 105, 2262-2272.	0.2	27
54	The Balance of Terror: An Alternative Mechanism for Competitive Tradeâ€Offs and Its Implications for Invading Species. American Naturalist, 1999, 154, 497-509.	1.0	26

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55	Construction of Multidimensional Clustered Patterns. Ecology, 1994, 75, 1289-1298.	1.5	23
56	Importation, Antibiotics, andClostridium difficileInfection in Veteran Long-Term Care. Annals of Internal Medicine, 2016, 164, 787.	2.0	23
57	Sleep Phase Delay in Cystic Fibrosis. Chest, 2017, 152, 386-393.	0.4	21
58	Human Rhinovirus Diversity and Evolution: How Strange the Change from Major to Minor. Journal of Virology, 2017, 91, .	1.5	20
59	The Dynamics of Disease Progression in Cystic Fibrosis. PLoS ONE, 2016, 11, e0156752.	1.1	19
60	The Role of Heterogeneity in the Persistence and Prevalence of Sin Nombre Virus in Deer Mice. American Naturalist, 2008, 172, 855-867.	1.0	18
61	How Should Cancer Models Be Constructed?. Cancer Control, 2020, 27, 107327482096200.	0.7	17
62	Predicting future coexistence in a N orth A merican ant community. Ecology and Evolution, 2014, 4, 1804-1819.	0.8	16
63	Fast food in ant communities: how competing species find resources. Oecologia, 2011, 167, 229-240.	0.9	15
64	SARSâ€CoVâ€2 innate effector associations and viral load in early nasopharyngeal infection. Physiological Reports, 2021, 9, e14761.	0.7	15
65	Time's crooked arrow: optimal foraging and rate-biased time perception. Animal Behaviour, 2002, 64, 589-597.	0.8	14
66	Sexâ€specific effects of an avian malaria parasite on an insect vector: support for the resource limitation hypothesis. Ecology, 2012, 93, 2448-2455.	1.5	14
67	Loose coupling in the bacterial flagellar motor. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4755-4760.	3.3	14
68	The Drivers of Acute and Long-term Care Clostridium difficile Infection Rates: A Retrospective Multilevel Cohort Study of 251 Facilities. Clinical Infectious Diseases, 2017, 65, 1282-1288.	2.9	13
69	Mathematical modelling the age dependence of Epstein-Barr virus associated infectious mononucleosis. Mathematical Medicine and Biology, 2012, 29, 245-261.	0.8	12
70	Mathematical modelling of chronic acetaminophen metabolism and liver injury. Mathematical Medicine and Biology, 2014, 31, 302-317.	0.8	12
71	A Time Since Recovery Model with Varying Rates of Loss of Immunity. Bulletin of Mathematical Biology, 2012, 74, 2810-2819.	0.9	11
72	Transmission of rhinovirus in the Utah BIG-LoVE families: Consequences of age and household structure. PLoS ONE, 2018, 13, e0199388.	1.1	11

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73	Evaluation of a five-year predicted survival model for cystic fibrosis in later time periods. Scientific Reports, 2020, 10, 6602.	1.6	11
74	ATM and ATR Activation Through Crosstalk Between DNA Damage Response Pathways. Bulletin of Mathematical Biology, 2021, 83, 38.	0.9	11
75	Will SARS-CoV-2 Become Just Another Seasonal Coronavirus?. Viruses, 2021, 13, 854.	1.5	11
76	Value of Ophthalmologic Examination in Diagnosing Temporal Arteritis. JAMA - Journal of the American Medical Association, 2002, 287, 1528.	3.8	10
77	Alternating Host Cell Tropism Shapes the Persistence, Evolution and Coexistence of Epsteinâ€“Barr Virus Infections inÂHuman. Bulletin of Mathematical Biology, 2011, 73, 1754-1773.	0.9	8
78	Serial infection of diverse host (Mus) genotypes rapidly impedes pathogen fitness and virulence. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20141568.	1.2	8
79	Prospective multicenter randomized patient recruitment and sample collection to enable future measurements of sputum biomarkers of inflammation in an observational study of cystic fibrosis. BMC Medical Research Methodology, 2019, 19, 88.	1.4	8
80	Do mechanisms matter? Comparing cancer treatment strategies across mathematical models and outcome objectives. Mathematical Biosciences and Engineering, 2021, 18, 6305-6327.	1.0	8
81	A Mathematical Model of Cell Cycle Dysregulation Due to Human Papillomavirus Infection. Bulletin of Mathematical Biology, 2017, 79, 1564-1585.	0.9	7
82	Long-term models of oxidative stress and mitochondrial damage in insulin resistance progression. Journal of Theoretical Biology, 2014, 340, 238-250.	0.8	5
83	A Mathematical Model for the Macrophage Response to Respiratory Viral Infection in Normal and Asthmatic Conditions. Bulletin of Mathematical Biology, 2017, 79, 1979-1998.	0.9	5
84	Lung Transplantation and Survival in Children with Cystic Fibrosis. New England Journal of Medicine, 2008, 359, e6.	13.9	4
85	Harnessing Intra-Host Strain Competition to Limit Antibiotic Resistance: Mathematical Model Results. Bulletin of Mathematical Biology, 2016, 78, 1828-1846.	0.9	4
86	Is mammography screening beneficial: An individual-based stochastic model for breast cancer incidence and mortality. PLoS Computational Biology, 2020, 16, e1008036.	1.5	4
87	Commentary on Calcagno et al. (2006): Coexistence in a metacommunity: the competitionâ€“colonization trade-off is not dead. Ecology Letters, 2006, 9, 907-909.	3.0	3
88	The role of age structure in the persistence of a chronic pathogen in a fluctuating population. Journal of Biological Dynamics, 2009, 3, 224-234.	0.8	3
89	Models of contrasting strategies of rhinovirus immune manipulation. Journal of Theoretical Biology, 2013, 327, 1-10.	0.8	3
90	Modeling factors that regulate cell cooperativity in the zebrafish posterior lateral line primordium. Journal of Theoretical Biology, 2018, 444, 93-99.	0.8	3

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91	The Uncertain Role of Corticosteroids in the Treatment of COVID-19. JAMA Internal Medicine, 2021, 181, 139.	2.6	3
92	The effects of intraspecific density dependence on species richness and species abundance distributions. Theoretical Ecology, 2011, 4, 153-162.	0.4	2
93	Can antibodies against flies alter malaria transmission in birds by changing vector behavior?. Journal of Theoretical Biology, 2014, 358, 93-101.	0.8	2
94	Water transport in plants obeys Murray's law. , 0, .		1
95	STOCHASTICITY, COMPLEX SPATIAL STRUCTURE, AND THE FEASIBILITY OF THE SHIFTING BALANCE THEORY. Evolution; International Journal of Organic Evolution, 2006, 60, 448-459.	1.1	0
96	Reply:. Hepatology, 2012, 56, 2428-2429.	3.6	0