Bryan T Grenfell

List of Publications by Year
in descending order

230 papers	29,030 citations	13332 70 h-index	7043 159 g-index
255 all docs	255 docs citations	255 times ranked	34621 citing authors

#	Article	IF	Citations
1	Global trends in antimicrobial use in food animals. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5649-5654.	3.3	2,521
2	Global antibiotic consumption 2000 to 2010: an analysis of national pharmaceutical sales data. Lancet Infectious Diseases, The, 2014, 14, 742-750.	4.6	1,719
3	An investigation of transmission control measures during the first 50 days of the COVID-19 epidemic in China. Science, 2020, 368, 638-642.	6.0	1,554
4	Inverse density dependence and the Allee effect. Trends in Ecology and Evolution, 1999, 14, 405-410.	4.2	1,429
5	Unifying the Epidemiological and Evolutionary Dynamics of Pathogens. Science, 2004, 303, 327-332.	6.0	1,159
6	Dynamics of the 2001 UK Foot and Mouth Epidemic: Stochastic Dispersal in a Heterogeneous Landscape. Science, 2001, 294, 813-817.	6.0	765
7	Synchrony, Waves, and Spatial Hierarchies in the Spread of Influenza. Science, 2006, 312, 447-451.	6.0	726
8	A Simple Model for Complex Dynamical Transitions in Epidemics. Science, 2000, 287, 667-670.	6.0	584
9	When individual behaviour matters: homogeneous and network models in epidemiology. Journal of the Royal Society Interface, 2007, 4, 879-891.	1.5	557
10	Epidemic Dynamics at the Human-Animal Interface. Science, 2009, 326, 1362-1367.	6.0	554
11	Absolute Humidity and the Seasonal Onset of Influenza in the Continental United States. PLoS Biology, 2010, 8, e1000316.	2.6	513
12	Noisy Clockwork: Time Series Analysis of Population Fluctuations in Animals. Science, 2001, 293, 638-643.	6.0	507
13	Host densities as determinants of abundance in parasite communities. Proceedings of the Royal Society B: Biological Sciences, 1998, 265, 1283-1289.	1.2	451
14	Reducing antimicrobial use in food animals. Science, 2017, 357, 1350-1352.	6.0	448
15	Epochal Evolution Shapes the Phylodynamics of Interpandemic Influenza A (H3N2) in Humans. Science, 2006, 314, 1898-1903.	6.0	423
16	Host Species Barriers to Influenza Virus Infections. Science, 2006, 312, 394-397.	6.0	413
17	DYNAMICS OF MEASLES EPIDEMICS: ESTIMATING SCALING OF TRANSMISSION RATES USING A TIME SERIES SIR MODEL. Ecological Monographs, 2002, 72, 169-184.	2.4	382
18	Disease and healthcare burden of COVID-19 in the United States. Nature Medicine, 2020, 26, 1212-1217.	15.2	358

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19	Whole-Genome Analysis of Human Influenza A Virus Reveals Multiple Persistent Lineages and Reassortment among Recent H3N2 Viruses. PLoS Biology, 2005, 3, e300.	2.6	340
20	The impact of COVID-19 nonpharmaceutical interventions on the future dynamics of endemic infections. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30547-30553.	3.3	325
21	Planning for smallpox outbreaks. Nature, 2003, 425, 681-685.	13.7	324
22	Long-term measles-induced immunomodulation increases overall childhood infectious disease mortality. Science, 2015, 348, 694-699.	6.0	319
23	The dynamics of measles in sub-Saharan Africa. Nature, 2008, 451, 679-684.	13.7	305
24	Opposite Patterns of Synchrony in Sympatric Disease Metapopulations. Science, 1999, 286, 968-971.	6.0	282
25	Urbanization and humidity shape the intensity of influenza epidemics in U.S. cities. Science, 2018, 362, 75-79.	6.0	272
26	Dynamics and selection of many-strain pathogens. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 17209-17214.	3.3	255
27	Susceptible supply limits the role of climate in the early SARS-CoV-2 pandemic. Science, 2020, 369, 315-319.	6.0	253
28	The use of mobile phone data to inform analysis of COVID-19 pandemic epidemiology. Nature Communications, 2020, 11, 4961.	5.8	246
29	Does multiple infection select for raised virulence?. Trends in Microbiology, 2002, 10, 401-405.	3.5	233
30	DYNAMICS OF MEASLES EPIDEMICS: SCALING NOISE, DETERMINISM, AND PREDICTABILITY WITH THE TSIR MODEL. Ecological Monographs, 2002, 72, 185-202.	2.4	225
31	Seasonally forced disease dynamics explored as switching between attractors. Physica D: Nonlinear Phenomena, 2001, 148, 317-335.	1.3	217
32	Optimal reactive vaccination strategies for a foot-and-mouth outbreak in the UK. Nature, 2006, 440, 83-86.	13.7	216
33	Use of serological surveys to generate key insights into the changing global landscape of infectious disease. Lancet, The, 2016, 388, 728-730.	6.3	213
34	Persistence, chaos and synchrony in ecology and epidemiology. Proceedings of the Royal Society B: Biological Sciences, 1998, 265, 7-10.	1.2	211
35	Demographic Variability, Vaccination, and the Spatiotemporal Dynamics of Rotavirus Epidemics. Science, 2009, 325, 290-294.	6.0	210
36	Immune life history, vaccination, and the dynamics of SARS-CoV-2 over the next 5 years. Science, 2020, 370, 811-818.	6.0	210

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37	Cetacean Morbillivirus: Current Knowledge and Future Directions. Viruses, 2014, 6, 5145-5181.	1.5	195
38	Epidemiological and evolutionary considerations of SARS-CoV-2 vaccine dosing regimes. Science, 2021, 372, 363-370.	6.0	185
39	Characterizing superspreading events and age-specific infectiousness of SARS-CoV-2 transmission in Georgia, USA. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 22430-22435.	3.3	178
40	Global Patterns in Seasonal Activity of Influenza A/H3N2, A/H1N1, and B from 1997 to 2005: Viral Coexistence and Latitudinal Gradients. PLoS ONE, 2007, 2, e1296.	1.1	176
41	Individual-based Perspectives on R0. Journal of Theoretical Biology, 2000, 203, 51-61.	0.8	174
42	The Genesis and Spread of Reassortment Human Influenza A/H3N2 Viruses Conferring Adamantane Resistance. Molecular Biology and Evolution, 2007, 24, 1811-1820.	3.5	174
43	Human mobility and the spatial transmission of influenza in the United States. PLoS Computational Biology, 2017, 13, e1005382.	1.5	174
44	Stochastic Processes Are Key Determinants of Short-Term Evolution in Influenza A Virus. PLoS Pathogens, 2006, 2, e125.	2.1	173
45	Dynamics of Influenza Virus Infection and Pathology. Journal of Virology, 2010, 84, 3974-3983.	1.5	172
46	Avian influenza H5N1 viral and bird migration networks in Asia. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 172-177.	3.3	169
47	Reduced vaccination and the risk of measles and other childhood infections post-Ebola. Science, 2015, 347, 1240-1242.	6.0	169
48	Spatial and temporal dynamics of superspreading events in the 2014â€“2015 West Africa Ebola epidemic. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2337-2342.	3.3	151
49	Spatial Transmission of 2009 Pandemic Influenza in the US. PLoS Computational Biology, 2014, 10, e1003635.	1.5	139
50	Foot-and-mouth disease under control in the UK. Nature, 2001, 411, 258-259.	13.7	125
51	Quantifying seasonal population fluxes driving rubella transmission dynamics using mobile phone data. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11114-11119.	3.3	124
52	Environmental Drivers of the Spatiotemporal Dynamics of Respiratory Syncytial Virus in the United States. PLoS Pathogens, 2015, 11, e1004591.	2.1	119
53	Phocine Distemper Virus: Current Knowledge and Future Directions. Viruses, 2014, 6, 5093-5134.	1.5	114
54	Impact of immunisation on pertussis transmission in England and Wales. Lancet, The, 2000, 355, 285-286.	6.3	107

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55	Hand, Foot, and Mouth Disease in China: Modeling Epidemic Dynamics of Enterovirus Serotypes and Implications for Vaccination. PLoS Medicine, 2016, 13, e1001958.	3.9	106
56	Anthelmintic resistance revisited: under-dosing, chemoprophylactic strategies, and mating probabilities. International Journal for Parasitology, 1999, 29, 77-91.	1.3	105
57	Multipack dynamics and the Allee effect in the African wild dog, Lycaon pictus. Animal Conservation, 2000, 3, 277-285.	1.5	105
58	Population dynamics of rapid fixation in cytotoxic T lymphocyte escape mutants of influenza A. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 11143-11147.	3.3	103
59	Reconciling early-outbreak estimates of the basic reproductive number and its uncertainty: framework and applications to the novel coronavirus (SARS-CoV-2) outbreak. Journal of the Royal Society Interface, 2020, 17, 20200144.	1.5	103
60	Discovering the Phylodynamics of RNA Viruses. PLoS Computational Biology, 2009, 5, e1000505.	1.5	100
61	Prolonged persistence of measles virus RNA is characteristic of primary infection dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14989-14994.	3.3	99
62	Multiannual forecasting of seasonal influenza dynamics reveals climatic and evolutionary drivers. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 9538-9542.	3.3	98
63	Intra- and Interhost Evolutionary Dynamics of Equine Influenza Virus. Journal of Virology, 2010, 84, 6943-6954.	1.5	97
64	Quantifying the Impact of Immune Escape on Transmission Dynamics of Influenza. Science, 2009, 326, 726-728.	6.0	96
65	Predictive Modeling of Influenza Shows the Promise of Applied Evolutionary Biology. Trends in Microbiology, 2018, 26, 102-118.	3.5	95
66	Accelerated viral dynamics in bat cell lines, with implications for zoonotic emergence. ELife, 2020, 9, .	2.8	91
67	Seasonality and comparative dynamics of six childhood infections in pre-vaccination Copenhagen. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 4111-4118.	1.2	90
68	Predicting the Impact of Vaccination on the Transmission Dynamics of Typhoid in South Asia: A Mathematical Modeling Study. PLoS Neglected Tropical Diseases, 2014, 8, e2642.	1.3	88
69	An unlikely partnership: parasites, concomitant immunity and host defence. Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 2543-2549.	1.2	87
70	The seasonality of nonpolio enteroviruses in the United States: Patterns and drivers. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3078-3083.	3.3	81
71	Vaccine nationalism and the dynamics and control of SARS-CoV-2. Science, 2021, 373, eabj7364.	6.0	80
72	Evolution of an Eurasian Avian-like Influenza Virus in NaÃ¯ve and Vaccinated Pigs. PLoS Pathogens, 2012, 8, e1002730.	2.1	79

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73	The path of least resistance: aggressive or moderate treatment?. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20140566.	1.2	79
74	Epidemic dynamics of respiratory syncytial virus in current and future climates. Nature Communications, 2019, 10, 5512.	5.8	78
75	Variation in SARS-CoV-2 outbreaks across sub-Saharan Africa. Nature Medicine, 2021, 27, 447-453.	15.2	77
76	A stochastic model for extinction and recurrence of epidemics: estimation and inference for measles outbreaks. Biostatistics, 2002, 3, 493-510.	0.9	76
77	The Shifting Demographic Landscape of Pandemic Influenza. PLoS ONE, 2010, 5, e9360.	1.1	76
78	Modeling rotavirus strain dynamics in developed countries to understand the potential impact of vaccination on genotype distributions. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 19353-19358.	3.3	74
79	Influence of birth rates and transmission rates on the global seasonality of rotavirus incidence. Journal of the Royal Society Interface, 2011, 8, 1584-1593.	1.5	73
80	Seroepidemiologic Study Designs for Determining SARS-COV-2 Transmission and Immunity. Emerging Infectious Diseases, 2020, 26, 1978-1986.	2.0	71
81	Seasonality and the persistence and invasion of measles. Proceedings of the Royal Society B: Biological Sciences, 2007, 274, 1133-1141.	1.2	69
82	Intracellular Demography and the Dynamics of Salmonella enterica Infections. PLoS Biology, 2006, 4, e349.	2.6	68
83	Accuracy of models for the 2001 foot-and-mouth epidemic. Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 1459-1468.	1.2	68
84	Immunogenicity of a Meningococcal B Vaccine during a University Outbreak. New England Journal of Medicine, 2016, 375, 220-228.	13.9	67
85	Forecasting Epidemiological and Evolutionary Dynamics of Infectious Diseases. Trends in Ecology and Evolution, 2016, 31, 776-788.	4.2	66
86	Multipack dynamics and the Allee effect in the African wild dog, Lycaon pictus. , 2000, 3, 277.		66
87	Stochastic dynamics and a power law for measles variability. Philosophical Transactions of the Royal Society B: Biological Sciences, 1999, 354, 769-776.	1.8	64
88	Mean-field-type equations for spread of epidemics: the â€˜small worldâ€™ model. Physica A: Statistical Mechanics and Its Applications, 1999, 274, 355-360.	1.2	63
89	Identifying Hotspots of Multidrug-Resistant Tuberculosis Transmission Using Spatial and Molecular Genetic Data. Journal of Infectious Diseases, 2016, 213, 287-294.	1.9	62
90	Estimating Drivers of Autochthonous Transmission of Chikungunya Virus in its Invasion of the Americas. PLOS Currents, 2015, 7, .	1.4	62

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91	Hospital-Community Interactions Foster Coexistence between Methicillin-Resistant Strains of Staphylococcus aureus. PLoS Pathogens, 2013, 9, e1003134.	2.1	61
92	Vaccination and the dynamics of immune evasion. Journal of the Royal Society Interface, 2007, 4, 143-153.	1.5	60
93	Impact of cross-protective vaccines on epidemiological and evolutionary dynamics of influenza. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3173-3177.	3.3	60
94	Empirical determinants of measles metapopulation dynamics in England and Wales. Proceedings of the Royal Society B: Biological Sciences, 1998, 265, 211-220.	1.2	59
95	Demonstrating the Use of High-Volume Electronic Medical Claims Data to Monitor Local and Regional Influenza Activity in the US. PLoS ONE, 2014, 9, e102429.	1.1	59
96	Synthesizing epidemiological and economic optima for control of immunizing infections. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 14366-14370.	3.3	57
97	Seasonal dynamics of bacterial meningitis: a time-series analysis. The Lancet Global Health, 2016, 4, e370-e377.	2.9	57
98	INFERENCE FOR INDIVIDUAL-LEVEL MODELS OF INFECTIOUS DISEASES IN LARGE POPULATIONS. Statistica Sinica, 2010, 20, 239-261.	0.2	57
99	Age Specific Patterns of Change in the Dynamics of Wuchereria bancrofti Infection in Papua New Guinea. American Journal of Tropical Medicine and Hygiene, 1991, 44, 518-527.	0.6	55
100	Measuring the Performance of Vaccination Programs Using Cross-Sectional Surveys: A Likelihood Framework and Retrospective Analysis. PLoS Medicine, 2011, 8, e1001110.	3.9	54
101	Forward-looking serial intervals correctly link epidemic growth to reproduction numbers. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	54
102	Changes in Rodent Abundance and Weather Conditions Potentially Drive Hemorrhagic Fever with Renal Syndrome Outbreaks in Xiâ€™an, China, 2005â€“2012. PLoS Neglected Tropical Diseases, 2015, 9, e0003530.	1.3	53
103	A Global Immunological Observatory to meet a time of pandemics. ELife, 2020, 9, .	2.8	52
104	Urban Cholera Transmission Hotspots and Their Implications for Reactive Vaccination: Evidence from Bissau City, Guinea Bissau. PLoS Neglected Tropical Diseases, 2012, 6, e1901.	1.3	51
105	Phylodynamics of Enterovirus A71-Associated Hand, Foot, and Mouth Disease in Viet Nam. Journal of Virology, 2015, 89, 8871-8879.	1.5	51
106	Persistent Chaos of Measles Epidemics in the Prevaccination United States Caused by a Small Change in Seasonal Transmission Patterns. PLoS Computational Biology, 2016, 12, e1004655.	1.5	49
107	Resolving the impact of waiting time distributions on the persistence of measles. Journal of the Royal Society Interface, 2010, 7, 623-640.	1.5	48
108	Animal Reservoir, Natural and Socioeconomic Variations and the Transmission of Hemorrhagic Fever with Renal Syndrome in Chenzhou, China, 2006â€“2010. PLoS Neglected Tropical Diseases, 2014, 8, e2615.	1.3	47

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109	Pareto rules for malaria super-spreaders and super-spreading. Nature Communications, 2019, 10, 3939.	5.8	47
110	Ruralâ€"urban gradient in seasonal forcing of measles transmission in Niger. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 2775-2782.	1.2	45
111	Inferring the inter-host transmission of influenza A virus using patterns of intra-host genetic variation. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20122173.	1.2	45
112	Modelling dynamics of the type I interferon response to in vitro viral infection. Journal of the Royal Society Interface, 2006, 3, 699-709.	1.5	43
113	Contact Heterogeneity, Rather Than Transmission Efficiency, Limits the Emergence and Spread of Canine Influenza Virus. PLoS Pathogens, 2014, 10, e1004455.	2.1	43
114	Preparing for uncertainty: endemic paediatric viral illnesses after COVID-19 pandemic disruption. Lancet, The, 2022, 400, 1663-1665.	6.3	43
115	Potential Role of Social Distancing in Mitigating Spread of Coronavirus Disease, South Korea. Emerging Infectious Diseases, 2020, 26, 2697-2700.	2.0	42
116	Epidemiological dynamics of enterovirus D68 in the United States and implications for acute flaccid myelitis. Science Translational Medicine, 2021, 13, .	5.8	41
117	Modelling vaccination strategies for COVID-19. Nature Reviews Immunology, 2022, 22, 139-141.	10.6	41
118	Host isolation and patterns of genetic variability in three populations of Teladorsagia from sheep. International Journal for Parasitology, 2004, 34, 1197-1204.	1.3	40
119	Protocols for sampling viral sequences to study epidemic dynamics. Journal of the Royal Society Interface, 2010, 7, 1119-1127.	1.5	40
120	Partially observed epidemics in wildlife hosts: modelling an outbreak of dolphin morbillivirus in the northwestern Atlantic, June 2013â€"2014. Journal of the Royal Society Interface, 2015, 12, 20150676.	1.5	40
121	tsiR: An R package for time-series Susceptible-Infected-Recovered models of epidemics. PLoS ONE, 2017, 12, e0185528.	1.1	40
122	Age-Specific Risks of Tuberculosis Infection From Household and Community Exposures and Opportunities for Interventions in a High-Burden Setting. American Journal of Epidemiology, 2014, 180, 853-861.	1.6	39
123	Routine Pediatric Enterovirus 71 Vaccination in China: a Cost-Effectiveness Analysis. PLoS Medicine, 2016, 13, e1001975.	3.9	39
124	Impact and longevity of measles-associated immune suppression: a matched cohort study using data from the THIN general practice database in the UK. BMJ Open, 2018, 8, e021465.	0.8	38
125	HIV-1/parasite co-infection and the emergence of new parasite strains. Parasitology, 2008, 135, 795-806.	0.7	37
126	Dynamics of Glycoprotein Charge in the Evolutionary History of Human Influenza. PLoS ONE, 2010, 5, e15674.	1.1	37

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127	Population viability analyses on a cycling population: a cautionary tale. Biological Conservation, 2001, 97, 61-69.	1.9	36
128	Integrating life history and cross-immunity into the evolutionary dynamics of pathogens. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 409-416.	1.2	36
129	The potential impact of coinfection on antimicrobial chemotherapy and drug resistance. Trends in Microbiology, 2015, 23, 537-544.	3.5	36
130	Persistence in Epidemic Metapopulations: Quantifying the Rescue Effects for Measles, Mumps, Rubella and Whooping Cough. PLoS ONE, 2013, 8, e74696.	1.1	35
131	Measles and the canonical path to elimination. Science, 2019, 364, 584-587.	6.0	35
132	Assessing the influence of climate on wintertime SARS-CoV-2 outbreaks. Nature Communications, 2021, 12, 846.	5.8	35
133	Evolution of Equine Influenza Virus in Vaccinated Horses. Journal of Virology, 2013, 87, 4768-4771.	1.5	34
134	Hazards, spatial transmission and timing of outbreaks in epidemic metapopulations. Environmental and Ecological Statistics, 2008, 15, 265-277.	1.9	33
135	High turnover drives prolonged persistence of influenza in managed pig herds. Journal of the Royal Society Interface, 2016, 13, 20160138.	1.5	33
136	Economic and Behavioral Influencers of Vaccination and Antimicrobial Use. Frontiers in Public Health, 2020, 8, 614113.	1.3	33
137	Epidemic cycling and immunity. Nature, 2005, 433, 366-367.	13.7	32
138	The impact of environmental and climatic variation on the spatiotemporal trends of hospitalized pediatric diarrhea in Ho Chi Minh City, Vietnam. Health and Place, 2015, 35, 147-154.	1.5	32
139	Disease dynamics in a dynamic social network. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 2663-2674.	1.2	31
140	Epidemiological impact of vaccination on the dynamics of two childhood diseases in rural Senegal. Microbes and Infection, 2005, 7, 593-599.	1.0	30
141	Measles on the Edge: Coastal Heterogeneities and Infection Dynamics. PLoS ONE, 2008, 3, e1941.	1.1	30
142	Bacillus Calmette-GuÃ©rin and Isoniazid Preventive Therapy Protect Contacts of Patients with Tuberculosis. American Journal of Respiratory and Critical Care Medicine, 2014, 189, 853-859.	2.5	30
143	The immune response and within-host emergence of pandemic influenza virus. Lancet, The, 2014, 384, 2077-2081.	6.3	30
144	Unreported cases in the 2014-2016 Ebola epidemic: Spatiotemporal variation, and implications for estimating transmission. PLoS Neglected Tropical Diseases, 2018, 12, e0006161.	1.3	30

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145	Impact on Epidemic Measles of Vaccination Campaigns Triggered by Disease Outbreaks or Serosurveys: A Modeling Study. PLoS Medicine, 2016, 13, e1002144.	3.9	29
146	Deploying digital health data to optimize influenza surveillance at national and local scales. PLoS Computational Biology, 2018, 14, e1006020.	1.5	29
147	Dynamics in a simple evolutionary-epidemiological model for the evolution of an initial asymptomatic infection stage. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 11541-11550.	3.3	28
148	Epidemic dynamics, interactions and predictability of enteroviruses associated with hand, foot and mouth disease in Japan. Journal of the Royal Society Interface, 2018, 15, 20180507.	1.5	27
149	Universal or Specific? A Modeling-Based Comparison of Broad-Spectrum Influenza Vaccines against Conventional, Strain-Matched Vaccines. PLoS Computational Biology, 2016, 12, e1005204.	1.5	27
150	Demographic buffering: titrating the effects of birth rate and imperfect immunity on epidemic dynamics. Journal of the Royal Society Interface, 2015, 12, 20141245.	1.5	26
151	Geographic transmission hubs of the 2009 influenza pandemic in the United States. Epidemics, 2019, 26, 86-94.	1.5	26
152	Waning immunity and re-emergence of measles and mumps in the vaccine era. Current Opinion in Virology, 2020, 40, 48-54.	2.6	26
153	A mechanistic spatio-temporal framework for modelling individual-to-individual transmissionâ€"With an application to the 2014-2015 West Africa Ebola outbreak. PLoS Computational Biology, 2017, 13, e1005798.	1.5	26
154	Modeling the Impact of Interventions Along the HIV Continuum of Care in Newark, New Jersey. Clinical Infectious Diseases, 2014, 58, 274-284.	2.9	25
155	Factors Associated With Measles Transmission in the United States During the Postelimination Era. JAMA Pediatrics, 2020, 174, 56.	3.3	25
156	Asynchrony between virus diversity and antibody selection limits influenza virus evolution. ELife, 2020, 9, .	2.8	25
157	Quantifying the risk of pandemic influenza virus evolution by mutation and re-assortment. Vaccine, 2015, 33, 6955-6966.	1.7	24
158	The decline of malaria in Vietnam, 1991â€"2014. Malaria Journal, 2018, 17, 226.	0.8	24
159	Synthesizing within-host and population-level selective pressures on viral populations: the impact of adaptive immunity on viral immune escape. Journal of the Royal Society Interface, 2010, 7, 1311-1318.	1.5	23
160	Climate change suggests a shift of H5N1 risk in migratory birds. Ecological Modelling, 2015, 306, 6-15.	1.2	23
161	Impact of Public Health Responses During a Measles Outbreak in an Amish Community in Ohio: Modeling the Dynamics of Transmission. American Journal of Epidemiology, 2018, 187, 2002-2010.	1.6	22
162	Incentivizing hospital infection control. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6221-6225.	3.3	22

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163	Impact of Birth Seasonality on Dynamics of Acute Immunizing Infections in Sub-Saharan Africa. PLoS ONE, 2013, 8, e75806.	1.1	22
164	Heading Off an Influenza Pandemic. Science, 2005, 309, 989-989.	6.0	19
165	Inferring population-level contact heterogeneity from common epidemic data. Journal of the Royal Society Interface, 2013, 10, 20120578.	1.5	19
166	Linking Time-Varying Symptomatology and Intensity of Infectiousness to Patterns of Norovirus Transmission. PLoS ONE, 2013, 8, e68413.	1.1	19
167	Beyond Ebola. Science, 2016, 351, 815-816.	6.0	19
168	Long term risks of recurrent seal plagues. Marine Pollution Bulletin, 1990, 21, 284-287.	2.3	18
169	Self-boosting vaccines and their implications for herd immunity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20154-20159.	3.3	18
170	Dynamic Perspectives on the Search for a Universal Influenza Vaccine. Journal of Infectious Diseases, 2019, 219, S46-S56.	1.9	18
171	A spatial stochastic model simulating a scabies epidemic and coyote population dynamics. Ecological Modelling, 2003, 166, 41-52.	1.2	17
172	Effect of data quality on estimates of farm infectiousness trends in the UK 2001 foot-and-mouth disease epidemic. Journal of the Royal Society Interface, 2007, 4, 235-241.	1.5	17
173	Estimating enhanced prevaccination measles transmission hotspots in the context of cross-scale dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14595-14600.	3.3	17
174	Analysis of multi-level spatial data reveals strong synchrony in seasonal influenza epidemics across Norway, Sweden, and Denmark. PLoS ONE, 2018, 13, e0197519.	1.1	17
175	Drug-resistant parasites and aggregated infection - early-season dynamics. Journal of Mathematical Biology, 2000, 41, 341-360.	0.8	16
176	Self-enforcing regional vaccination agreements. Journal of the Royal Society Interface, 2016, 13, 20150907.	1.5	16
177	Fogarty International Center collaborative networks in infectious disease modeling: Lessons learnt in research and capacity building. Epidemics, 2019, 26, 116-127.	1.5	16
178	Modeling the effect of HIV coinfection on clearance and sustained virologic response during treatment for hepatitis C virus. Epidemics, 2015, 12, 1-10.	1.5	15
179	Hand, Foot, and Mouth Disease in China: Critical Community Size and Spatial Vaccination Strategies. Scientific Reports, 2016, 6, 25248.	1.6	15
180	Trajectory of individual immunity and vaccination required for SARS-CoV-2 community immunity: a conceptual investigation. Journal of the Royal Society Interface, 2021, 18, 20200683.	1.5	15

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181	The importance of the generation interval in investigating dynamics and control of new SARS-CoV-2 variants. Journal of the Royal Society Interface, 2022, 19, .	1.5	15
182	Directly transmitted viral diseases: modeling the dynamics of transmission. Trends in Microbiology, 2008, 16, 165-172.	3.5	14
183	Disentangling the dynamical underpinnings of differences in SARS-CoV-2 pathology using within-host ecological models. PLoS Pathogens, 2020, 16, e1009105.	2.1	14
184	Immuno-epidemiology and the predictability of viral evolution. Science, 2022, 376, 1161-1162.	6.0	13
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