Pejman Rohani

List of Publications by Year
in descending order

114	8,583	66343 42	62596 80
papers	citations	h-index	g-index

126	126	126	7840
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Simple Model for Complex Dynamical Transitions in Epidemics. Science, 2000, 287, 667-670.	12.6	584
2	Appropriate Models for the Management of Infectious Diseases. PLoS Medicine, 2005, 2, e174.	8.4	407
3	Opposite Patterns of Synchrony in Sympatric Disease Metapopulations. Science, 1999, 286, 968-971.	12.6	282
4	Coherence and Conservation. Science, 2000, 290, 1360-1364.	12.6	279
5	Interactions between serotypes of dengue highlight epidemiological impact of cross-immunity. Journal of the Royal Society Interface, 2013, 10, 20130414.	3.4	254
6	Seasonally forced disease dynamics explored as switching between attractors. Physica D: Nonlinear Phenomena, 2001, 148, 317-335.	2.8	217
7	Environmental transmission of low pathogenicity avian influenza viruses and its implications for pathogen invasion. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10365-10369.	7.1	216
8	Persistence, chaos and synchrony in ecology and epidemiology. Proceedings of the Royal Society B: Biological Sciences, 1998, 265, 7-10.	2.6	211
9	The Role of Environmental Transmission in Recurrent Avian Influenza Epidemics. PLoS Computational Biology, 2009, 5, e1000346.	3.2	197
10	Contact Network Structure Explains the Changing Epidemiology of Pertussis. Science, 2010, 330, 982-985.	12.6	186
11	Avoidable errors in the modelling of outbreaks of emerging pathogens, with special reference to Ebola. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20150347.	2.6	185
12	Estimating spatial coupling in epidemiological systems: a mechanistic approach. Ecology Letters, 2002, 5, 20-29.	6.4	178
13	The Interplay between Determinism and Stochasticity in Childhood Diseases. American Naturalist, 2002, 159, 469-481.	2.1	174
14	Ecological interference between fatal diseases. Nature, 2003, 422, 885-888.	27.8	166
15	Poverty trap formed by the ecology of infectious diseases. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 1185-1192.	2.6	154
16	Resolving the roles of immunity, pathogenesis, and immigration for rabies persistence in vampire bats. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20837-20842.	7.1	149
17	Estimating the Duration of Pertussis Immunity Using Epidemiological Signatures. PLoS Pathogens, 2009, 5, e1000647.	4.7	124
18	Identifying the Interaction Between Influenza and Pneumococcal Pneumonia Using Incidence Data. Science Translational Medicine, 2013, 5, 191ra84.	12.4	123

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19	Perplexities of pertussis: recent global epidemiological trends and their potential causes. Epidemiology and Infection, 2014, 142, 672-684.	2.1	122
20	Spatial self-organisation in ecology: pretty patterns or robust reality?. Trends in Ecology and Evolution, 1997, 12, 70-74.	8.7	117
21	Impact of immunisation on pertussis transmission in England and Wales. Lancet, The, 2000, 355, 285-286.	13.7	107
22	The pertussis enigma: reconciling epidemiology, immunology and evolution. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20152309.	2.6	104
23	Crossing the scale from within-host infection dynamics to between-host transmission fitness: a discussion of current assumptions and knowledge. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20140302.	4.0	95
24	The decline and resurgence of pertussis in the US. Epidemics, 2011, 3, 183-188.	3.0	88
25	Spatial spread of the West Africa Ebola epidemic. Royal Society Open Science, 2016, 3, 160294.	2.4	86
26	Population dynamic interference among childhood diseases. Proceedings of the Royal Society B: Biological Sciences, 1998, 265, 2033-2041.	2.6	85
27	Impact of vaccination and birth rate on the epidemiology of pertussis: a comparative study in 64 countries. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 3239-3245.	2.6	82
28	Transmission dynamics reveal the impracticality of COVID-19 herd immunity strategies. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25897-25903.	7.1	77
29	The impact of past vaccination coverage and immunity on pertussis resurgence. Science Translational Medicine, 2018, 10, .	12.4	76
30	Fitnessâ€dependent dispersal in metapopulations and its consequences for persistence and synchrony. Journal of Animal Ecology, 1999, 68, 530-539.	2.8	70
31	Noise, nonlinearity and seasonality: the epidemics of whooping cough revisited. Journal of the Royal Society Interface, 2008, 5, 403-413.	3.4	61
32	Modelling pulsed releases for sterile insect techniques: fitness costs of sterile and transgenic males and the effects on mosquito dynamics. Journal of Applied Ecology, 2010, 47, 1329-1339.	4.0	60
33	Statistical Inference for Multi-Pathogen Systems. PLoS Computational Biology, 2011, 7, e1002135.	3.2	59
34	Epidemiological Consequences of Imperfect Vaccines for Immunizing Infections. SIAM Journal on Applied Mathematics, 2014, 74, 1810-1830.	1.8	57
35	An Agent-Based Model to study the epidemiological and evolutionary dynamics of Influenza viruses. BMC Bioinformatics, 2011, 12, 87.	2.6	55
36	Unraveling the Transmission Ecology of Polio. PLoS Biology, 2015, 13, e1002172.	5.6	52

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37	Nonlinear dynamic analysis of an epidemiological model for COVID-19 including public behavior and government action. Nonlinear Dynamics, 2020, 101, 1545-1559.	5.2	51
38	Two-species asymmetric competition: effects of age structure on intra- and interspecific interactions. Journal of Animal Ecology, 2007, 76, 83-93.	2.8	50
39	Intrinsically generated coloured noise in laboratory insect populations. Proceedings of the Royal Society B: Biological Sciences, 1998, 265, 785-792.	2.6	48
40	Resolving the impact of waiting time distributions on the persistence of measles. Journal of the Royal Society Interface, 2010, 7, 623-640.	3.4	48
41	A Multi-scale Analysis of Influenza A Virus Fitness Trade-offs due to Temperature-dependent Virus Persistence. PLoS Computational Biology, 2013, 9, e1002989.	3.2	48
42	Deciphering the impacts of vaccination and immunity on pertussis epidemiology in Thailand. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9595-9600.	7.1	48
43	Anticipating the emergence of infectious diseases. Journal of the Royal Society Interface, 2017, 14, 20170115.	3.4	46
44	The statistics of epidemic transitions. PLoS Computational Biology, 2019, 15, e1006917.	3.2	46
45	Mathematical Modeling of Infectious Diseases Dynamics. , 0, , 379-404.		45
46	Tracking the dynamics of pathogen interactions: Modeling ecological and immune-mediated processes in a two-pathogen single-host system. Journal of Theoretical Biology, 2007, 245, 9-25.	1.7	42
47	The curse of the Pharaoh revisited: evolutionary bi-stability in environmentally transmitted pathogens. Ecology Letters, 2011, 14, 569-575.	6.4	39
48	A general multi-strain model with environmental transmission: Invasion conditions for the disease-free and endemic states. Journal of Theoretical Biology, 2010, 264, 729-736.	1.7	38
49	Can vaccine legacy explain the British pertussis resurgence?. Vaccine, 2013, 31, 5903-5908.	3.8	38
50	The role of influenza in the epidemiology of pneumonia. Scientific Reports, 2015, 5, 15314.	3.3	38
51	Estimating 1/fÎ± scaling exponents from short time-series. Physica D: Nonlinear Phenomena, 2002, 166, 147-154.	2.8	37
52	Adaptive Evolution and Environmental Durability Jointly Structure Phylodynamic Patterns in Avian Influenza Viruses. PLoS Biology, 2014, 12, e1001931.	5.6	36
53	Detecting critical slowing down in high-dimensional epidemiological systems. PLoS Computational Biology, 2020, 16, e1007679.	3.2	34
54	Dissecting a wildlife disease hotspot: the impact of multiple host species, environmental transmission and seasonality in migration, breeding and mortality. Journal of the Royal Society Interface, 2013, 10, 20120804.	3.4	31

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55	Epidemiological evidence for herd immunity induced by acellular pertussis vaccines. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E716-7.	7.1	31
56	Epidemiological impact of vaccination on the dynamics of two childhood diseases in rural Senegal. Microbes and Infection, 2005, 7, 593-599.	1.9	30
57	Changing spatial epidemiology of pertussis in continental USA. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 4574-4581.	2.6	30
58	Trade-offs between and within scales: environmental persistence and within-host fitness of avian influenza viruses. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20133051.	2.6	30
59	Never mind the length, feel the quality: the impact of long-term epidemiological data sets on theory, application and policy. Trends in Ecology and Evolution, 2010, 25, 611-618.	8.7	29
60	The relationship between mucosal immunity, nasopharyngeal carriage, asymptomatic transmission and the resurgence of Bordetella pertussis. F1000Research, 2017, 6, 1568.	1.6	28
61	Stage-structured competition and the cyclic dynamics of host-parasitoid populations. Journal of Animal Ecology, 2004, 73, 706-722.	2.8	26
62	Local variation in plant quality influences largeâ€scale population dynamics. Oikos, 2015, 124, 1160-1170.	2.7	25
63	Combating pertussis resurgence: One booster vaccination schedule does not fit all. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E472-7.	7.1	25
64	Pertussis immunity and epidemiology: mode and duration of vaccine-induced immunity. Parasitology, 2016, 143, 835-849.	1.5	25
65	Duration of Immunity and Effectiveness of Diphtheria-Tetanusâ€"Acellular Pertussis Vaccines in Children. JAMA Pediatrics, 2019, 173, 588.	6.2	24
66	Forecasting infectious disease emergence subject to seasonal forcing. Theoretical Biology and Medical Modelling, 2017, 14, 17.	2.1	23
67	Anticipating epidemic transitions with imperfect data. PLoS Computational Biology, 2018, 14, e1006204.	3.2	23
68	Age-structure and transient dynamics in epidemiological systems. Journal of the Royal Society Interface, 2019, 16, 20190151.	3.4	23
69	Mathematical model of the feedback between global supply chain disruption and COVID-19 dynamics. Scientific Reports, 2021, 11, 15450.	3.3	21
70	Transient indicators of tipping points in infectious diseases. Journal of the Royal Society Interface, 2020, 17, 20200094.	3.4	20
71	Asymptomatic Bordetella pertussis infections in a longitudinal cohort of young African infants and their mothers. ELife, 2021, 10, .	6.0	20
72	The Dynamical Consequences of Developmental Variability and Demographic Stochasticity for Hostâ€Parasitoid Interactions. American Naturalist, 2004, 164, 543-558.	2.1	19

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73	Using quantitative disease dynamics as a tool for guiding response to avian influenza in poultry in the United States of America. Preventive Veterinary Medicine, 2014, 113, 376-397.	1.9	19
74	Decreasing stochasticity through enhanced seasonality in measles epidemics. Journal of the Royal Society Interface, 2010, 7, 727-739.	3.4	18
75	Dynamical footprints enable detection of disease emergence. PLoS Biology, 2020, 18, e3000697.	5.6	18
76	Age-structured effects and disease interference in childhood infections. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 1229-1237.	2.6	17
77	Forecasting Epidemiological Consequences of Maternal Immunization. Clinical Infectious Diseases, 2016, 63, S205-S212.	5.8	17
78	Overcoming Waning Immunity in Pertussis Vaccines: Workshop of the National Institute of Allergy and Infectious Diseases. Journal of Immunology, 2020, 205, 877-882.	0.8	17
79	Dynamics of Pertussis Transmission in the United States. American Journal of Epidemiology, 2015, 181, 921-931.	3.4	16
80	Resolving pertussis immunity and vaccine effectiveness using incidence time series. Expert Review of Vaccines, 2012, 11, 1319-1329.	4.4	15
81	The potential for sexual transmission to compromise control of Ebola virus outbreaks. Biology Letters, 2016, 12, 20151079.	2.3	15
82	The Link between Dengue Incidence and El NiÃ±o Southern Oscillation. PLoS Medicine, 2009, 6, e1000185.	8.4	14
83	Herd immunity acquired indirectly from interactions between the ecology of infectious diseases, demography and economics. Journal of the Royal Society Interface, 2010, 7, 541-547.	3.4	14
84	The consequences of climate change at an avian influenza â€˜hotspotâ€™. Biology Letters, 2012, 8, 1036-1039.	2.3	14
85	Natural enemy specialization and the period of population cycles. Ecology Letters, 2003, 6, 381-384.	6.4	13
86	Environmental transmission scrambles coexistence patterns of avian influenza viruses. Epidemics, 2010, 2, 92-98.	3.0	13
87	Parasitism and constitutive defence costs to host lifeâ€history traits in a parasitoidâ€"host interaction. Ecological Entomology, 2009, 34, 763-771.	2.2	12
88	The colour of noise in short ecological time series data. Mathematical Medicine and Biology, 2004, 21, 63-72.	1.2	11
89	Association of Diphtheria-Tetanusâ€"Acellular Pertussis Vaccine Timeliness and Number of Doses With Age-Specific Pertussis Risk in Infants and Young Children. JAMA Network Open, 2021, 4, e2119118.	5.9	11
90	Anomalous influenza seasonality in the United States and the emergence of novel influenza B viruses. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	10

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91	The epidemic volatility index, a novel early warning tool for identifying new waves in an epidemic. Scientific Reports, 2021, 11, 23775.	3.3	10
92	The dynamical implications of disease interference: Correlations and coexistence. Theoretical Population Biology, 2005, 68, 205-215.	1.1	9
93	The population ecology of infectious diseases: pertussis in Thailand as a case study. Parasitology, 2012, 139, 1888-1898.	1.5	9
94	Comparative epidemiology of poliovirus transmission. Scientific Reports, 2017, 7, 17362.	3.3	9
95	Subtype diversity and reassortment potential for coâ€circulating avian influenza viruses at a diversity hot spot. Journal of Animal Ecology, 2014, 83, 566-575.	2.8	8
96	Core pertussis transmission groups in England and Wales: A tale of two eras. Vaccine, 2018, 36, 1160-1166.	3.8	8
97	Quantifying the consequences of measles-induced immune modulation for whooping cough epidemiology. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180270.	4.0	8
98	Maternal pertussis immunisation: clinical gains and epidemiological legacy. Eurosurveillance, 2017, 22, .	7.0	8
99	Implementation and adherence of routine pertussis vaccination (DTP) in a low-resource urban birth cohort. BMJ Open, 2020, 10, e041198.	1.9	7
100	Neutrality, Cross-Immunity and Subtype Dominance in Avian Influenza Viruses. PLoS ONE, 2014, 9, e88817.	2.5	7
101	Commentary: resolving pertussis resurgence and vaccine immunity using mathematical transmission models. Human Vaccines and Immunotherapeutics, 2019, 15, 683-686.	3.3	6
102	Transmission models indicate Ebola virus persistence in non-human primate populations is unlikely. Journal of the Royal Society Interface, 2022, 19, 20210638.	3.4	5
103	Five approaches to the suppression of SARS-CoV-2 without intensive social distancing. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20203074.	2.6	4
104	The impact of infection-derived immunity on disease dynamics. Journal of Mathematical Biology, 2021, 83, 61.	1.9	4
105	Durability of protection after 5 doses of acellular pertussis vaccine among 5â€“9Âyear old children in King County, Washington. Vaccine, 2021, 39, 6144-6150.	3.8	3
106	Dissecting recurrent waves of pertussis across the boroughs of London. PLoS Computational Biology, 2022, 18, e1009898.	3.2	3
107	Using age-stratified incidence data to examine the transmission consequences of pertussis vaccination. Epidemics, 2016, 16, 1-7.	3.0	2
108	Response to Comment on â€œThe impact of past vaccination coverage and immunity on pertussis resurgenceâ€· Science Translational Medicine, 2018, 10, .	12.4	2

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109	Immunological heterogeneity informs estimation of the durability of vaccine protection. Journal of the Royal Society Interface, 2022, 19, .	3.4	2
110	Chapter Three. Understanding Host- Multipathogen Systems: Modeling the Interaction Between Ecology and Immunology. , 2010, , 48-70.		1
111	Stability and Resilience of Transportation Systems: Is a Traffic Jam About to Occur?. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 10803-10814.	8.0	1
112	Optimal non-pharmaceutical intervention policy for Covid-19 epidemic via neuroevolution algorithm. Evolution, Medicine and Public Health, 2022, 10, 59-70.	2.5	1
113	Ecology Of Infectious Diseases: An Example with Two Vaccine-Preventable Infectious Diseases. , 0, , 189-198.		0
114	Untangling the evolution of dengue viruses. Science, 2021, 374, 941-942.	12.6	0