

Renato Casagranti

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

4,340
citations

147801

31
h-index

118850

62
g-index

87
all docs

87
docs citations

87
times ranked

6083
citing authors

#	ARTICLE	IF	CITATIONS
1	Spread and dynamics of the COVID-19 epidemic in Italy: Effects of emergency containment measures. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10484-10491.	7.1	878
2	Phenotypic diversity and ecosystem functioning in changing environments: A theoretical framework. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 11376-11381.	7.1	395
3	Trends and missing parts in the study of movement ecology. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19060-19065.	7.1	276
4	On spatially explicit models of cholera epidemics. Journal of the Royal Society Interface, 2010, 7, 321-333.	3.4	166
5	A simple mechanistic model of seed dispersal, predation and plant establishment: Janzen-Connell and beyond. Journal of Ecology, 2004, 92, 733-746.	4.0	158
6	Reassessment of the 2010–2011 Haiti cholera outbreak and rainfall-driven multiseason projections. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6602-6607.	7.1	153
7	Modelling cholera epidemics: the role of waterways, human mobility and sanitation. Journal of the Royal Society Interface, 2012, 9, 376-388.	3.4	143
8	The SIRC model and influenza A. Mathematical Biosciences, 2006, 200, 152-169.	1.9	141
9	Metapopulation persistence and species spread in river networks. Ecology Letters, 2014, 17, 426-434.	6.4	113
10	The geography of COVID-19 spread in Italy and implications for the relaxation of confinement measures. Nature Communications, 2020, 11, 4264.	12.8	110
11	Assessing the effectiveness of a large marine protected area for reef shark conservation. Biological Conservation, 2017, 207, 64-71.	4.1	109
12	A mesoscale approach to extinction risk in fragmented habitats. Nature, 1999, 400, 560-562.	27.8	82
13	Prediction of the spatial evolution and effects of control measures for the unfolding Haiti cholera outbreak. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	82
14	A Theoretical Approach to Tourism Sustainability. Ecology and Society, 2002, 6, .	0.9	77
15	Generalized reproduction numbers and the prediction of patterns in waterborne disease. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19703-19708.	7.1	76
16	Traveling waves in a model of influenza A drift. Journal of Theoretical Biology, 2003, 222, 437-445.	1.7	74
17	Looking for hotspots of marine metacommunity connectivity: a methodological framework. Scientific Reports, 2016, 6, 23705.	3.3	58
18	Big-data-driven modeling unveils country-wide drivers of endemic schistosomiasis. Scientific Reports, 2017, 7, 489.	3.3	58

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19	Integration of satellite remote sensing data in ecosystem modelling at local scales: Practices and trends. <i>Methods in Ecology and Evolution</i> , 2018, 9, 1810-1821.	5.2	48
20	Habitat Destruction, Environmental Catastrophes, and Metapopulation Extinction. <i>Theoretical Population Biology</i> , 2002, 61, 127-140.	1.1	45
21	The spatial spread of schistosomiasis: A multidimensional network model applied to Saint-Louis region, Senegal. <i>Advances in Water Resources</i> , 2017, 108, 406-415.	3.8	45
22	Population genomics meet Lagrangian simulations: Oceanographic patterns and long larval duration ensure connectivity among <i>Paracentrotus lividus</i> populations in the Adriatic and Ionian seas. <i>Ecology and Evolution</i> , 2017, 7, 2463-2479.	1.9	43
23	Modelling the local dynamics of the zebra mussel (<i>Dreissena polymorpha</i>). <i>Freshwater Biology</i> , 2007, 52, 1223-1238.	2.4	41
24	Heterogeneity in schistosomiasis transmission dynamics. <i>Journal of Theoretical Biology</i> , 2017, 432, 87-99.	1.7	40
25	A Persistence Criterion for Metapopulations. <i>Theoretical Population Biology</i> , 2002, 61, 115-125.	1.1	39
26	A Minimal Model for Forest Fire Regimes. <i>American Naturalist</i> , 1999, 153, 527-539.	2.1	38
27	Hydrologic controls and anthropogenic drivers of the zebra mussel invasion of the Mississippi-Missouri river system. <i>Water Resources Research</i> , 2011, 47, .	4.2	38
28	Spatially Explicit Conditions for Waterborne Pathogen Invasion. <i>American Naturalist</i> , 2013, 182, 328-346.	2.1	37
29	Modeling Plastics Exposure for the Marine Biota: Risk Maps for Fin Whales in the Pelagos Sanctuary (North-Western Mediterranean). <i>Frontiers in Marine Science</i> , 2019, 6, .	2.5	35
30	A Theoretical Analysis of the Geography of Schistosomiasis in Burkina Faso Highlights the Roles of Human Mobility and Water Resources Development in Disease Transmission. <i>PLoS Neglected Tropical Diseases</i> , 2015, 9, e0004127.	3.0	34
31	Floquet theory for seasonal environmental forcing of spatially explicit waterborne epidemics. <i>Theoretical Ecology</i> , 2014, 7, 351-365.	1.0	33
32	Potential and realized connectivity of the seagrass <i>Posidonia oceanica</i> and their implication for conservation. <i>Diversity and Distributions</i> , 2017, 23, 1423-1434.	4.1	33
33	Modelled effects of prawn aquaculture on poverty alleviation and schistosomiasis control. <i>Nature Sustainability</i> , 2019, 2, 611-620.	23.7	32
34	Integrating field data into individual-based models of the migration of European eel larvae. <i>Marine Ecology - Progress Series</i> , 2013, 487, 135-149.	1.9	31
35	A generalized definition of reactivity for ecological systems and the problem of transient species dynamics. <i>Methods in Ecology and Evolution</i> , 2017, 8, 1574-1584.	5.2	28
36	Hydroclimatology of dual-peak annual cholera incidence: Insights from a spatially explicit model. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	27

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37	The role of aquatic reservoir fluctuations in long-term cholera patterns. <i>Epidemics</i> , 2012, 4, 33-42.	3.0	25
38	On the predictive ability of mechanistic models for the Haitian cholera epidemic. <i>Journal of the Royal Society Interface</i> , 2015, 12, 20140840.	3.4	25
39	The intermediate dispersal principle in spatially explicit metapopulations. <i>Journal of Theoretical Biology</i> , 2006, 239, 22-32.	1.7	23
40	Conditions for transient epidemics of waterborne disease in spatially explicit systems. <i>Royal Society Open Science</i> , 2019, 6, 181517.	2.4	23
41	Movement Strategies of Seed Predators as Determinants of Plant Recruitment Patterns. <i>American Naturalist</i> , 2008, 172, 694-711.	2.1	22
42	Epidemicity thresholds for water-borne and water-related diseases. <i>Journal of Theoretical Biology</i> , 2018, 447, 126-138.	1.7	22
43	On the role of human mobility in the spread of cholera epidemics: towards an epidemiological movement ecology. <i>Ecohydrology</i> , 2012, 5, 531-540.	2.4	21
44	Shifts in the thermal niche of fruit trees under climate change: The case of peach cultivation in France. <i>Agricultural and Forest Meteorology</i> , 2021, 300, 108327.	4.8	21
45	Modelling human movement in cholera spreading along fluvial systems. <i>Ecohydrology</i> , 2011, 4, 49-55.	2.4	20
46	Sex- and age-structured models for Alpine ibex <i>Capra ibex ibex</i> population dynamics. <i>Wildlife Biology</i> , 2012, 18, 318-332.	1.4	19
47	Optimal control of the spatial allocation of COVID-19 vaccines: Italy as a case study. <i>PLoS Computational Biology</i> , 2022, 18, e1010237.	3.2	19
48	The dynamics of microplastics and associated contaminants: Data-driven Lagrangian and Eulerian modelling approaches in the Mediterranean Sea. <i>Science of the Total Environment</i> , 2021, 777, 145944.	8.0	18
49	Rainfall mediations in the spreading of epidemic cholera. <i>Advances in Water Resources</i> , 2013, 60, 34-46.	3.8	17
50	When will the zebra mussel reach Florence? A model for the spread of <i>Dreissena polymorpha</i> in the Arno water system (Italy). <i>Ecohydrology</i> , 2009, 2, 428-439.	2.4	16
51	Inefficient epidemic spreading in scale-free networks. <i>Physical Review E</i> , 2008, 77, 026113.	2.1	15
52	Data-driven analysis of amino acid change dynamics timely reveals SARS-CoV-2 variant emergence. <i>Scientific Reports</i> , 2021, 11, 21068.	3.3	15
53	Reduced order models for the prediction of the time of occurrence of extreme episodes. <i>Chaos, Solitons and Fractals</i> , 2001, 12, 313-320.	5.1	14
54	The temporal patterns of disease severity and prevalence in schistosomiasis. <i>Chaos</i> , 2015, 25, 036405.	2.5	13

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55	Evidence of peak-to-peak dynamics in ecology. <i>Ecology Letters</i> , 2001, 4, 610-617.	6.4	12
56	Barn swallows long-distance migration occurs between significantly temperature-correlated areas. <i>Scientific Reports</i> , 2018, 8, 12359.	3.3	11
57	Deep Learning Segmentation of Satellite Imagery Identifies Aquatic Vegetation Associated with Snail Intermediate Hosts of Schistosomiasis in Senegal, Africa. <i>Remote Sensing</i> , 2022, 14, 1345.	4.0	11
58	When resolution does matter: Modelling indirect contacts in dairy farms at different levels of detail. <i>PLoS ONE</i> , 2019, 14, e0223652.	2.5	10
59	Spatial patterns and temporal variability of seagrass connectivity in the Mediterranean Sea. <i>Diversity and Distributions</i> , 2020, 26, 169-182.	4.1	10
60	Connectivity interplays with age in shaping contagion over networks with vital dynamics. <i>Physical Review E</i> , 2015, 91, 022809.	2.1	9
61	The epidemicity index of recurrent SARS-CoV-2 infections. <i>Nature Communications</i> , 2021, 12, 2752.	12.8	8
62	Within-host mechanisms of immune regulation explain the contrasting dynamics of two helminth species in both single and dual infections. <i>PLoS Computational Biology</i> , 2020, 16, e1008438.	3.2	8
63	Instabilities in Creative Professions: A Minimal Model. <i>Nonlinear Dynamics, Psychology, and Life Sciences</i> , 2000, 4, 255-273.	0.2	7
64	A Transmission Model of the 2010 Cholera Epidemic in Haiti. <i>Annals of Internal Medicine</i> , 2011, 155, 403.	3.9	7
65	Extending full protection inside existing marine protected areas, or reducing fishing effort outside, can reconcile conservation and fisheries goals. <i>Journal of Applied Ecology</i> , 2020, 57, 1948-1957.	4.0	7
66	Impact of ICT in Environmental Sciences: A citation analysis 1990–2007. <i>Environmental Modelling and Software</i> , 2009, 24, 865-871.	4.5	6
67	Detection of <i>Vibrio cholerae</i> O1 and O139 in environmental waters of rural Bangladesh: a flow-cytometry-based field trial. <i>Epidemiology and Infection</i> , 2015, 143, 2330-2342.	2.1	6
68	The time varying network of urban space uses in Milan. <i>Applied Network Science</i> , 2019, 4, .	1.5	6
69	A coupled Lagrangian-Eulerian model for microplastics as vectors of contaminants applied to the Mediterranean Sea. <i>Environmental Research Letters</i> , 2022, 17, 024038.	5.2	6
70	Reconstruction of long-distance bird migration routes using advanced machine learning techniques on geolocator data. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20190031.	3.4	5
71	Protection reveals density-dependent dynamics in fish populations: A case study in the central Mediterranean. <i>PLoS ONE</i> , 2020, 15, e0228604.	2.5	5
72	Central-place seed foraging and vegetation patterns. <i>Theoretical Population Biology</i> , 2009, 76, 229-240.	1.1	4

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73	A parsimonious mechanistic model of reproductive and vegetative growth in fruit trees predicts consequences of fruit thinning and branch pruning. <i>Tree Physiology</i> , 2021, 41, 1794-1807.	3.1	4
74	Local resource competition and the skewness of the sex ratio: a demographic model. <i>Mathematical Biosciences and Engineering</i> , 2008, 5, 813-830.	1.9	4
75	Identification of Ecological Hotspots for the Seagrass <i>Posidonia oceanica</i> via Metapopulation Modeling. <i>Frontiers in Marine Science</i> , 2021, 8, .	2.5	3
76	Low-GHG culturally acceptable diets to reduce individual carbon footprint by 20%. <i>Journal of Cleaner Production</i> , 2022, 338, 130623.	9.3	3
77	Influence of Network Heterogeneity on Chaotic Dynamics of Infectious Diseases. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 267-272.	0.4	2
78	Microplastic as a vector of chemical contamination in the marine environment: A coupled Lagrangian-Eulerian approach. , 2020, , .		2
79	On the Aperiodic Locomotor Behavior of <i>Halobacterium salinarum</i> Under Periodic Light Stimuli. <i>Journal of Theoretical Biology</i> , 2002, 214, 647-656.	1.7	1
80	Remarks on Epidemic Spreading in Scale-Free Networks. <i>Understanding Complex Systems</i> , 2009, , 77-89.	0.6	1
81	Understanding large-scale, long-term larval connectivity patterns: The case of the Northern Line Islands in the Central Pacific Ocean. <i>PLoS ONE</i> , 2017, 12, e0182681.	2.5	1