Marino Gatto

List of Publications by Year
in descending order

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140 papers	4,873 citations	101543 36 h-index	118850 62 g-index
151 all docs	151 docs citations	151 times ranked	5548 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	On spatially explicit models of cholera epidemics. Journal of the Royal Society Interface, 2010, 7, 321-333.	3.4	166
3	Reassessment of the 2010â€“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
4	Modelling cholera epidemics: the role of waterways, human mobility and sanitation. Journal of the Royal Society Interface, 2012, 9, 376-388.	3.4	143
5	Lyapunov Exponents and the Mathematics of Invasion in Oscillatory or Chaotic Populations. Theoretical Population Biology, 1995, 48, 126-171.	1.1	142
6	Metapopulation persistence and species spread in river networks. Ecology Letters, 2014, 17, 426-434.	6.4	113
7	On the spaceâ€time evolution of a cholera epidemic. Water Resources Research, 2008, 44, .	4.2	111
8	The geography of COVID-19 spread in Italy and implications for the relaxation of confinement measures. Nature Communications, 2020, 11, 4264.	12.8	110
9	Assessing the effectiveness of a large marine protected area for reef shark conservation. Biological Conservation, 2017, 207, 64-71.	4.1	109
10	A mesoscale approach to extinction risk in fragmented habitats. Nature, 1999, 400, 560-562.	27.8	82
11	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
12	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
13	Understanding the effectiveness of marine protected areas using genetic connectivity patterns and Lagrangian simulations. Diversity and Distributions, 2013, 19, 1531-1542.	4.1	74
14	Age and growth of Anguilla anguilla in the Camargue lagoons. Journal of Fish Biology, 2006, 68, 876-890.	1.6	63
15	Hydrology and density feedbacks control the ecology of intermediate hosts of schistosomiasis across habitats in seasonal climates. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6427-6432.	7.1	61
16	Integrated field, laboratory, and theoretical study of PKD spread in a Swiss prealpine river. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11992-11997.	7.1	60
17	Pricing Biodiversity and Ecosystem Services: The Never-Ending Story. BioScience, 2000, 50, 347.	4.9	59
18	Looking for hotspots of marine metacommunity connectivity: a methodological framework. Scientific Reports, 2016, 6, 23705.	3.3	58

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19	Big-data-driven modeling unveils country-wide drivers of endemic schistosomiasis. Scientific Reports, 2017, 7, 489.	3.3	58
20	River networks as ecological corridors: A coherent ecohydrological perspective. Advances in Water Resources, 2018, 112, 27-58.	3.8	58
21	Assessing Dispersal Patterns of Fish Propagules from an Effective Mediterranean Marine Protected Area. PLoS ONE, 2012, 7, e52108.	2.5	54
22	VVF: integrating modelling and GIS in a software tool for habitat suitability assessment. Environmental Modelling and Software, 2000, 15, 1-12.	4.5	52
23	Sex differentiation of the European eel in brackish and freshwater environments: a comparative analysis. Journal of Fish Biology, 2006, 69, 1228-1235.	1.6	52
24	Some Remarks on Models of Plankton Densities in Lakes. American Naturalist, 1991, 137, 264-267.	2.1	50
25	The Evolutionary Optimality of Oscillatory and Chaotic Dynamics in Simple Population Models. Theoretical Population Biology, 1993, 43, 310-336.	1.1	47
26	River networks and ecological corridors: Reactive transport on fractals, migration fronts, hydrochory. Water Resources Research, 2007, 43, .	4.2	46
27	Intra-specific scaling of natural mortality in fish: the paradigmatic case of the European eel. Oecologia, 2011, 165, 333-339.	2.0	46
28	Habitat Destruction, Environmental Catastrophes, and Metapopulation Extinction. Theoretical Population Biology, 2002, 61, 127-140.	1.1	45
29	The spatial spread of schistosomiasis: A multidimensional network model applied to Saint-Louis region, Senegal. Advances in Water Resources, 2017, 108, 406-415.	3.8	45
30	Multi-objective assessment of conservation measures for the European eel (Anguilla anguilla): an application to the Camargue lagoons. ICES Journal of Marine Science, 2007, 64, 1483-1490.	2.5	44
31	Timing and rate of sexual maturation of European eel in brackish and freshwater environments. Journal of Fish Biology, 2006, 69, 200-208.	1.6	42
32	Region-based citation bias in science. Nature, 1998, 396, 210-210.	27.8	41
33	Modelling the local dynamics of the zebra mussel (Dreissena polymorpha). Freshwater Biology, 2007, 52, 1223-1238.	2.4	41
34	On the probability of extinction of the Haiti cholera epidemic. Stochastic Environmental Research and Risk Assessment, 2016, 30, 2043-2055.	4.0	41
35	Heterogeneity in schistosomiasis transmission dynamics. Journal of Theoretical Biology, 2017, 432, 87-99.	1.7	40
36	A Persistence Criterion for Metapopulations. Theoretical Population Biology, 2002, 61, 115-125.	1.1	39

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37	A stochastic bioeconomic model for the management of clam farming. Ecological Modelling, 2005, 184, 163-174.	2.5	38
38	Hydrologic controls and anthropogenic drivers of the zebra mussel invasion of the Mississippiâ€Missouri river system. Water Resources Research, 2011, 47, .	4.2	38
39	Spatially Explicit Conditions for Waterborne Pathogen Invasion. American Naturalist, 2013, 182, 328-346.	2.1	37
40	Spread of proliferative kidney disease in fish along stream networks: A spatial metacommunity framework. Freshwater Biology, 2018, 63, 114-127.	2.4	37
41	A global viability assessment of the European eel. Global Change Biology, 2015, 21, 3323-3335.	9.5	36
42	Density and temperature-dependence of vital rates in the Manila clam Tapes philippinarum: a stochastic demographic model. Marine Ecology - Progress Series, 2004, 272, 153-164.	1.9	35
43	Glucose- but Not Rice-Based Oral Rehydration Therapy Enhances the Production of Virulence Determinants in the Human Pathogen Vibrio cholerae. PLoS Neglected Tropical Diseases, 2014, 8, e3347.	3.0	34
44	A Theoretical Analysis of the Geography of Schistosomiasis in Burkina Faso Highlights the Roles of Human Mobility and Water Resources Development in Disease Transmission. PLoS Neglected Tropical Diseases, 2015, 9, e0004127.	3.0	34
45	Floquet theory for seasonal environmental forcing of spatially explicit waterborne epidemics. Theoretical Ecology, 2014, 7, 351-365.	1.0	33
46	An epidemiological model for proliferative kidney disease in salmonid populations. Parasites and Vectors, 2016, 9, 487.	2.5	32
47	Modelled effects of prawn aquaculture on poverty alleviation and schistosomiasis control. Nature Sustainability, 2019, 2, 611-620.	23.7	32
48	Allometric Scaling and Seasonality in the Epidemics of Wildlife Diseases. American Naturalist, 2008, 172, 818-828.	2.1	31
49	Integrating field data into individual-based models of the migration of European eel larvae. Marine Ecology - Progress Series, 2013, 487, 135-149.	1.9	31
50	Does K-selection imply prudent predation?. Theoretical Population Biology, 1984, 25, 347-363.	1.1	30
51	Some models of catastrophic behavior in exploited forests. Plant Ecology, 1987, 69, 213-222.	1.2	30
52	The economic benefits of the Kyoto Protocol. Nature, 2001, 413, 478-479.	27.8	30
53	The decline of the grey partridge in Europe: comparing demographies in traditional and modern agricultural landscapes. Ecological Modelling, 2004, 177, 313-335.	2.5	30
54	A generalized definition of reactivity for ecological systems and the problem of transient species dynamics. Methods in Ecology and Evolution, 2017, 8, 1574-1584.	5.2	28

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55	Size selectivity of fyke nets for European eel Anguilla anguilla. Journal of Fish Biology, 2009, 74, 2178-2186.	1.6	27
56	Hydroclimatology of dualâ€peak annual cholera incidence: Insights from a spatially explicit model. Geophysical Research Letters, 2012, 39, .	4.0	27
57	Cholera in the Lake Kivu region (DRC): Integrating remote sensing and spatially explicit epidemiological modeling. Water Resources Research, 2014, 50, 5624-5637.	4.2	27
58	Structural risk minimization: a robust method for densityâ€dependence detection and model selection. Ecography, 2007, 30, 400-416.	4.5	25
59	The role of aquatic reservoir fluctuations in long-term cholera patterns. Epidemics, 2012, 4, 33-42.	3.0	25
60	On the predictive ability of mechanistic models for the Haitian cholera epidemic. Journal of the Royal Society Interface, 2015, 12, 20140840.	3.4	25
61	A functional interpretation of the logistic equation. Ecological Modelling, 1988, 42, 155-159.	2.5	23
62	The intermediate dispersal principle in spatially explicit metapopulations. Journal of Theoretical Biology, 2006, 239, 22-32.	1.7	23
63	Conditions for transient epidemics of waterborne disease in spatially explicit systems. Royal Society Open Science, 2019, 6, 181517.	2.4	23
64	Movement Strategies of Seed Predators as Determinants of Plant Recruitment Patterns. American Naturalist, 2008, 172, 694-711.	2.1	22
65	Modeling Key Drivers of Cholera Transmission Dynamics Provides New Perspectives for Parasitology. Trends in Parasitology, 2017, 33, 587-599.	3.3	22
66	Epidemicity thresholds for water-borne and water-related diseases. Journal of Theoretical Biology, 2018, 447, 126-138.	1.7	22
67	On the role of human mobility in the spread of cholera epidemics: towards an epidemiological movement ecology. Ecohydrology, 2012, 5, 531-540.	2.4	21
68	Assessing the Potential Impact of Clam Rearing in Dystrophic Lagoons: An Integrated Oxygen Balance. Chemistry and Ecology, 2003, 19, 129-146.	1.6	20
69	Body-size scaling in an SEI model of wildlife diseases. Theoretical Population Biology, 2008, 73, 374-382.	1.1	20
70	Modelling human movement in cholera spreading along fluvial systems. Ecohydrology, 2011, 4, 49-55.	2.4	20
71	A STOCHASTIC BIOECONOMIC ANALYSIS OF SILVER EEL FISHERIES. , 2001, 11, 281-294.		19
72	Sexâ€•and ageâ€structured models for Alpine ibex Capra ibex ibex population dynamics. Wildlife Biology, 2012, 18, 318-332.	1.4	19

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73	Optimal control of the spatial allocation of COVID-19 vaccines: Italy as a case study. PLoS Computational Biology, 2022, 18, e1010237.	3.2	19
74	Interspecific competition among macroparasites in a density-dependent host population. Journal of Mathematical Biology, 1998, 37, 467-490.	1.9	18
75	Rainfall mediations in the spreading of epidemic cholera. Advances in Water Resources, 2013, 60, 34-46.	3.8	17
76	When will the zebra mussel reach Florence? A model for the spread of Dreissena polymorpha in the Arno water system (Italy). Ecohydrology, 2009, 2, 428-439.	2.4	16
77	The regulator theory for finite automata. Information and Control, 1976, 31, 1-16.	1.1	15
78	A general minimum principle for competing populations: Some ecological and evolutionary consequences. Theoretical Population Biology, 1990, 37, 369-388.	1.1	15
79	Body growth and mortality of the spiny lobster Palinurus elephas within and outside a small marine protected area. Fisheries Research, 2010, 106, 543-549.	1.7	15
80	Some remarks on periodic harvesting of a fish population. Mathematical Biosciences, 1981, 56, 47-69.	1.9	14
81	Delayed and inverse density dependence in a chamois population of the Italian Alps. Ecography, 1997, 20, 37-47.	4.5	14
82	A user-friendly tool to assess management plans for European eel fishery and conservation. Environmental Modelling and Software, 2015, 64, 9-17.	4.5	14
83	The Interaction between Soil Acidity and Forest Dynamics: A Simple-Model Exhibiting Catastrophic Behavior. Theoretical Population Biology, 1993, 43, 31-51.	1.1	13
84	Acidic Deposition, Plant Pests, and the Fate of Forest Ecosystems. Theoretical Population Biology, 1998, 54, 257-269.	1.1	13
85	Optimisation of combustion bioenergy in a farming district under different localisation strategies. Biomass and Bioenergy, 2013, 58, 20-30.	5.7	13
86	The temporal patterns of disease severity and prevalence in schistosomiasis. Chaos, 2015, 25, 036405.	2.5	13
87	Range of reproduction number estimates for COVID-19 spread. Biochemical and Biophysical Research Communications, 2021, 538, 253-258.	2.1	13
88	Physiological profiles and demographic rates in relation to food quantity and predictability: An optimization approach. Evolutionary Ecology, 1989, 3, 1-30.	1.2	12
89	Assessing The Potential Impact Of Clam Rearing In Dystrophic Lagoons: An Integrated Oxygen Balance. Chemistry and Ecology, 2003, 19, 129-146.	1.6	11
90	Deep Learning Segmentation of Satellite Imagery Identifies Aquatic Vegetation Associated with Snail Intermediate Hosts of Schistosomiasis in Senegal, Africa. Remote Sensing, 2022, 14, 1345.	4.0	11

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91	On Volterra and D'Ancona's footsteps: The temporal and spatial complexity of ecological interactions and networks1. Italian Journal of Zoology, 2009, 76, 3-15.	0.6	10
92	A demographic model for the conservation and management of the European eel: an application to a Mediterranean coastal lagoon. ICES Journal of Marine Science, 2019, , .	2.5	10
93	Spatial patterns and temporal variability of seagrass connectivity in the Mediterranean Sea. Diversity and Distributions, 2020, 26, 169-182.	4.1	10
94	Pseudoequilibrium in dynamical systemsâ€. International Journal of Systems Science, 1973, 4, 809-824.	5.5	9
95	On the optimality of the logistic growth. Journal of Optimization Theory and Applications, 1988, 57, 513-517.	1.5	9
96	A review of some physiological and evolutionary aspects of body size and bud size of Hydra. Hydrobiologia, 1991, 216-217, 377-382.	2.0	9
97	VC-dimension and structural risk minimization for the analysis of nonlinear ecological models. Applied Mathematics and Computation, 2006, 176, 166-176.	2.2	9
98	Body size and meta-community structure: the allometric scaling of parasitic worm communities in their mammalian hosts. Parasitology, 2016, 143, 880-893.	1.5	8
99	The epidemicity index of recurrent SARS-CoV-2 infections. Nature Communications, 2021, 12, 2752.	12.8	8
100	Within-host mechanisms of immune regulation explain the contrasting dynamics of two helminth species in both single and dual infections. PLoS Computational Biology, 2020, 16, e1008438.	3.2	8
101	Quantifying the Dynamics of Prion Infection: a Bifurcation Analysis of Laurent's Model. Journal of Theoretical Biology, 2000, 205, 283-296.	1.7	7
102	A Transmission Model of the 2010 Cholera Epidemic in Haiti. Annals of Internal Medicine, 2011, 155, 403.	3.9	7
103	Extending full protection inside existing marine protected areas, or reducing fishing effort outside, can reconcile conservation and fisheries goals. Journal of Applied Ecology, 2020, 57, 1948-1957.	4.0	7
104	Is the rock partridge Alectoris graeca saxatilis threatened in the Dolomitic Alps?. Animal Conservation, 2003, 6, 71-81.	2.9	6
105	A bootstrap approach to account for uncertainty in egg production methods applied to small fish stocks. Fisheries Research, 2012, 117-118, 130-136.	1.7	6
106	Detection ofVibrio choleraeO1 and O139 in environmental waters of rural Bangladesh: a flow-cytometry-based field trial. Epidemiology and Infection, 2015, 143, 2330-2342.	2.1	6
107	Model selection in demographic time series using VC-bounds. Ecological Modelling, 2006, 191, 186-195.	2.5	5
108	Light and hydrologic variability as drivers of stream biofilm dynamics in a flume experiment. Ecohydrology, 2014, 7, 391-400.	2.4	5

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109	Protection reveals density-dependent dynamics in fish populations: A case study in the central Mediterranean. PLoS ONE, 2020, 15, e0228604.	2.5	5
110	Assessing the response of demographic parameters to density in a rotifer population. Ecological Modelling, 1992, 62, 209-232.	2.5	4
111	Central-place seed foraging and vegetation patterns. Theoretical Population Biology, 2009, 76, 229-240.	1.1	4
112	Local resource competition and the skewness of the sex ratio: a demographic model. Mathematical Biosciences and Engineering, 2008, 5, 813-830.	1.9	4
113	Taxing overexploited open-access fisheries: the role of demand elasticity. Ecological Modelling, 1992, 60, 185-198.	2.5	3
114	Identification of Ecological Hotspots for the Seagrass Posidonia oceanica via Metapopulation Modeling. Frontiers in Marine Science, 2021, 8, .	2.5	3
115	Comments on "Macarthur's Minimization Principle: A Footnote". American Naturalist, 1982, 119, 140-144.	2.1	3
116	A predatorâ€”prey model for discrete-time commercial fisheries. Applied Mathematical Modelling, 1976, 1, 67-76.	4.2	2
117	A method for the real time forecast of the outflow from a lake. Applied Mathematical Modelling, 1980, 4, 322-324.	4.2	2
118	On the determination of a commercial fishery production model. Ecological Modelling, 1980, 8, 165-172.	2.5	2
119	Optimal allocation of vessels along a fish migration path. Ecological Modelling, 1982, 14, 229-250.	2.5	2
120	Optimal diffusion of a new technology when both demand and supply are nonstatic. Journal of Optimization Theory and Applications, 1992, 73, 75-87.	1.5	2
121	Spotlight needed on Italian policy. Nature, 1998, 391, 12-12.	27.8	2
122	Estimating Daily Egg Production of European Anchovy in the Adriatic Sea: A Critical Appraisal. Marine Ecology, 2002, 23, 272-279.	1.1	2
123	The competitive coexistence of two species in periodically varying environments. Bollettino Di Zoologia, 1979, 46, 191-200.	0.3	1
124	Estimating escapements of anadromous fishes via upstream test fishing data. Ecological Modelling, 1980, 8, 173-188.	2.5	1
125	Some problems of effort allocation on two non-interacting fish stocks. Ecological Modelling, 1982, 14, 193-211.	2.5	1
126	The optimal reclamation of eutrophic water bodies. Applied Mathematics and Computation, 1991, 43, 105-115.	2.2	1

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127	Optimal investment in the reclamation of eutrophic water bodies. Journal of Optimization Theory and Applications, 1991, 71, 389-398.	1.5	1
128	Optimal life strategies in organisms exposed to recurrent critical events. Journal of Optimization Theory and Applications, 1996, 90, 79-94.	1.5	1
129	Response from Gatto and De Leo:. BioScience, 2001, 51, 271.	4.9	1
130	Understanding large-scale, long-term larval connectivity patterns: The case of the Northern Line Islands in the Central Pacific Ocean. PLoS ONE, 2017, 12, e0182681.	2.5	1
131	Epidemicity of cholera spread and the fate of infection control measures. Journal of the Royal Society Interface, 2022, 19, 20210844.	3.4	1
132	A report on some recent experiences in developing environmental software. Ecological Modelling, 1989, 47, 19-32.	2.5	0
133	Erratum to â€œBody growth and mortality of the spiny lobster Palinurus elephas within and outside a small marine protected areaâ€•[Fish. Res. 106 (2010) 543â€“549]. Fisheries Research, 2011, 108, 404.	1.7	0
134	MODELLI SPAZIO-TEMPORALI DI DIFFUSIONE, PREVISIONE E CONTROLLO DELLE EPIDEMIE DI COLERA: DAL SUDAFRICA AD HAITI. Istituto Lombardo - Accademia Di Scienze E Lettere - Rendiconti Di Scienze, 2014, , .	0.0	0
135	Species. , 2020, , 47-113.		0
136	Populations. , 2020, , 114-224.		0
137	Waterborne Disease. , 2020, , 225-339.		0
138	Afterthoughts and Outlook. , 2020, , 340-361.		0
139	The Kyoto Protocol Is Cost-effective. Ecology and Society, 2002, 6, .	0.9	0
140	A review of some physiological and evolutionary aspects of body size and bud size of Hydra. , 1991, , 377-382.		0