

Enrico Bertuzzo

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

105
papers

4,681
citations

34
h-index

66
g-index

126
ext. papers

5,743
ext. citations

6.3
avg, IF

5.91
L-index

#	Paper	IF	Citations
105	Persistence of amphibian metapopulation occupancy in dynamic wetlandscapes. <i>Landscape Ecology</i> , 2022 , 37, 695	4.3	3
104	Loss of geomorphic diversity in shallow tidal embayments promoted by storm-surge barriers.. <i>Science Advances</i> , 2022 , 8, eabm8446	14.3	3
103	The Metabolic Regimes at the Scale of an Entire Stream Network Unveiled Through Sensor Data and Machine Learning. <i>Ecosystems</i> , 2021 , 24, 1792-1809	3.9	4
102	Emergent spatial patterns of competing benthic and pelagic algae in a river network: A parsimonious basin-scale modeling analysis. <i>Water Research</i> , 2021 , 193, 116887	12.5	2
101	The epidemicity index of recurrent SARS-CoV-2 infections. <i>Nature Communications</i> , 2021 , 12, 2752	17.4	3
100	Range of reproduction number estimates for COVID-19 spread. <i>Biochemical and Biophysical Research Communications</i> , 2021 , 538, 253-258	3.4	4
99	Dynamic spatio-temporal patterns of metapopulation occupancy in patchy habitats. <i>Royal Society Open Science</i> , 2021 , 8, 201309	3.3	5
98	Sensor-based localization of epidemic sources on human mobility networks. <i>PLoS Computational Biology</i> , 2021 , 17, e1008545	5	0
97	Spread and dynamics of the COVID-19 epidemic in Italy: Effects of emergency containment measures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 10484-10491	11.5	590
96	Generation and application of river network analogues for use in ecology and evolution. <i>Ecology and Evolution</i> , 2020 , 10, 7537-7550	2.8	14
95	Modeling the coupled dynamics of stream metabolism and microbial biomass. <i>Limnology and Oceanography</i> , 2020 , 65, 1573-1593	4.8	10
94	SESTET: A spatially explicit stream temperature model based on equilibrium temperature. <i>Hydrological Processes</i> , 2020 , 34, 355-369	3.3	2
93	Permafrost dynamics and the risk of anthrax transmission: a modelling study. <i>Scientific Reports</i> , 2020 , 10, 16460	4.9	10
92	The geography of COVID-19 spread in Italy and implications for the relaxation of confinement measures. <i>Nature Communications</i> , 2020 , 11, 4264	17.4	59
91	Rethinking wastewater risks and monitoring in light of the COVID-19 pandemic. <i>Nature Sustainability</i> , 2020 , 3, 981-990	22.1	111
90	Conditions for transient epidemics of waterborne disease in spatially explicit systems. <i>Royal Society Open Science</i> , 2019 , 6, 181517	3.3	16
89	A minimalist model of extinction and range dynamics of virtual mountain species driven by warming temperatures. <i>PLoS ONE</i> , 2019 , 14, e0213775	3.7	13

88	Emergent productivity regimes of river networks. <i>Limnology and Oceanography Letters</i> , 2019 , 4, 173-181	7.9	30
87	Effects of altered river network connectivity on the distribution of <i>Salmo trutta</i> : Insights from a metapopulation model. <i>Freshwater Biology</i> , 2019 , 64, 1877-1895	3.1	8
86	Unexpected large evasion fluxes of carbon dioxide from turbulent streams draining the world's mountains. <i>Nature Communications</i> , 2019 , 10, 4888	17.4	31
85	Mapping landscape connectivity as a driver of species richness under tectonic and climatic forcing. <i>Earth Surface Dynamics</i> , 2019 , 7, 895-910	3.8	6
84	Evolving biodiversity patterns in changing river networks. <i>Journal of Theoretical Biology</i> , 2019 , 462, 418-424	12.4	17
83	Spread of proliferative kidney disease in fish along stream networks: A spatial metacommunity framework. <i>Freshwater Biology</i> , 2018 , 63, 114-127	3.1	25
82	Climate-Induced Changes in Spring Snowmelt Impact Ecosystem Metabolism and Carbon Fluxes in an Alpine Stream Network. <i>Ecosystems</i> , 2018 , 21, 373-390	3.9	30
81	How network structure can affect nitrogen removal by streams. <i>Freshwater Biology</i> , 2018 , 63, 128-140	3.1	40
80	Near real-time forecasting for cholera decision making in Haiti after Hurricane Matthew. <i>PLoS Computational Biology</i> , 2018 , 14, e1006127	5	17
79	River landscapes and optimal channel networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 6548-6553	11.5	23
78	The potential impact of case-area targeted interventions in response to cholera outbreaks: A modeling study. <i>PLoS Medicine</i> , 2018 , 15, e1002509	11.6	31
77	&i>tran&i>-SAS v1.0: a numerical model to compute catchment-scale hydrologic transport using StorAge Selection Functions. <i>Geoscientific Model Development</i> , 2018 , 11, 1627-1639	6.3	17
76	Environmental heterogeneity promotes spatial resilience of phototrophic biofilms in streambeds. <i>Biology Letters</i> , 2018 , 14,	3.6	8
75	Estimating species distribution and abundance in river networks using environmental DNA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 11724-11729	11.5	68
74	Micro-Hotspots of Risk in Urban Cholera Epidemics. <i>Journal of Infectious Diseases</i> , 2018 , 218, 1164-1168	7	17
73	Modeling Key Drivers of Cholera Transmission Dynamics Provides New Perspectives for Parasitology. <i>Trends in Parasitology</i> , 2017 , 33, 587-599	6.4	15
72	Seasonality in cholera dynamics: A rainfall-driven model explains the wide range of patterns in endemic areas. <i>Advances in Water Resources</i> , 2017 , 108, 357-366	4.7	8
71	Scaling of dissolved organic carbon removal in river networks. <i>Advances in Water Resources</i> , 2017 , 110, 136-146	4.7	40

70	Integrated field, laboratory, and theoretical study of PKD spread in a Swiss prealpine river. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 11992-11997	11.5	39
69	Heterogeneity in schistosomiasis transmission dynamics. <i>Journal of Theoretical Biology</i> , 2017 , 432, 87-99	2.3	26
68	Real-time projections of cholera outbreaks through data assimilation and rainfall forecasting. <i>Advances in Water Resources</i> , 2017 , 108, 345-356	4.7	8
67	The scaling structure of the global road network. <i>Royal Society Open Science</i> , 2017 , 4, 170590	3.3	15
66	On the probability of extinction of the Haiti cholera epidemic. <i>Stochastic Environmental Research and Risk Assessment</i> , 2016 , 30, 2043-2055	3.5	31
65	Geomorphic controls on elevational gradients of species richness. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 1737-42	11.5	73
64	Reply to comment by Porporato and Calabrese on Storage selection functions: A coherent framework for quantifying how catchments store and release water and solutes. <i>Water Resources Research</i> , 2016 , 52, 616-618	5.4	
63	An epidemiological model for proliferative kidney disease in salmonid populations. <i>Parasites and Vectors</i> , 2016 , 9, 487	4	25
62	Mobile phone data highlights the role of mass gatherings in the spreading of cholera outbreaks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 6421-6	11.5	106
61	Hydrology and density feedbacks control the ecology of intermediate hosts of schistosomiasis across habitats in seasonal climates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 6427-32	11.5	38
60	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, 2330-42	4.3	4
59	Metapopulation capacity of evolving fluvial landscapes. <i>Water Resources Research</i> , 2015 , 51, 2696-2706	5.4	30
58	Storage selection functions: A coherent framework for quantifying how catchments store and release water and solutes. <i>Water Resources Research</i> , 2015 , 51, 4840-4847	5.4	130
57	Transport of fluorobenzoate tracers in a vegetated hydrologic control volume: 2. Theoretical inferences and modeling. <i>Water Resources Research</i> , 2015 , 51, 2793-2806	5.4	33
56	Transport of fluorobenzoate tracers in a vegetated hydrologic control volume: 1. Experimental results. <i>Water Resources Research</i> , 2015 , 51, 2773-2792	5.4	17
55	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	4.8	28
54	On the predictive ability of mechanistic models for the Haitian cholera epidemic. <i>Journal of the Royal Society Interface</i> , 2015 , 12, 20140840	4.1	21
53	Metapopulation persistence and species spread in river networks. <i>Ecology Letters</i> , 2014 , 17, 426-34	10	78

52	Optimizing a remotely sensed proxy for plankton biomass in Lake Kivu. <i>International Journal of Remote Sensing</i> , 2014 , 35, 5219-5238	3.1	
51	Floquet theory for seasonal environmental forcing of spatially explicit waterborne epidemics. <i>Theoretical Ecology</i> , 2014 , 7, 351-365	1.6	27
50	Hydrologic controls on basin-scale distribution of benthic invertebrates. <i>Water Resources Research</i> , 2014 , 50, 2903-2920	5.4	38
49	Light and hydrologic variability as drivers of stream biofilm dynamics in a flume experiment. <i>Ecohydrology</i> , 2014 , 7, 391-400	2.5	4
48	Cholera in the Lake Kivu region (DRC): Integrating remote sensing and spatially explicit epidemiological modeling. <i>Water Resources Research</i> , 2014 , 50, 5624-5637	5.4	22
47	Fluvial network organization imprints on microbial co-occurrence networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 12799-804	11.5	130
46	SEHR-ECHO v1.0: a Spatially Explicit Hydrologic Response model for ecohydrologic applications. <i>Geoscientific Model Development</i> , 2014 , 7, 2733-2746	6.3	24
45	Glucose- but not rice-based oral rehydration therapy enhances the production of virulence determinants in the human pathogen <i>Vibrio cholerae</i> . <i>PLoS Neglected Tropical Diseases</i> , 2014 , 8, e3347	4.8	24
44	Biophysical controls on cluster dynamics and architectural differentiation of microbial biofilms in contrasting flow environments. <i>Environmental Microbiology</i> , 2014 , 16, 802-12	5.2	24
43	Geomorphic signatures on Brutsaert base flow recession analysis. <i>Water Resources Research</i> , 2013 , 49, 5462-5472	5.4	54
42	Catchment-scale herbicides transport: Theory and application. <i>Advances in Water Resources</i> , 2013 , 52, 232-242	4.7	34
41	Rainfall mediations in the spreading of epidemic cholera. <i>Advances in Water Resources</i> , 2013 , 60, 34-46	4.7	17
40	Spatially explicit conditions for waterborne pathogen invasion. <i>American Naturalist</i> , 2013 , 182, 328-46	3.7	33
39	Headwaters are critical reservoirs of microbial diversity for fluvial networks. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2013 , 280, 20131760	4.4	122
38	Hydrologic variability affects invertebrate grazing on phototrophic biofilms in stream microcosms. <i>PLoS ONE</i> , 2013 , 8, e60629	3.7	36
37	On species persistence-time distributions. <i>Journal of Theoretical Biology</i> , 2012 , 303, 15-24	2.3	25
36	Hydroclimatology of dual-peak annual cholera incidence: Insights from a spatially explicit model. <i>Geophysical Research Letters</i> , 2012 , 39, n/a-n/a	4.9	24
35	The role of aquatic reservoir fluctuations in long-term cholera patterns. <i>Epidemics</i> , 2012 , 4, 33-42	5.1	23

34	On the role of human mobility in the spread of cholera epidemics: towards an epidemiological movement ecology. <i>Ecohydrology</i> , 2012 , 5, 531-540	2.5	18
33	Modelling cholera epidemics: the role of waterways, human mobility and sanitation. <i>Journal of the Royal Society Interface</i> , 2012 , 9, 376-88	4.1	113
32	Reassessment of the 2010-2011 Haiti cholera outbreak and rainfall-driven multiseason projections. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 6602-7	11.5	132
31	Generalized reproduction numbers and the prediction of patterns in waterborne disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 19703-8	11.5	66
30	Hydrologic controls and anthropogenic drivers of the zebra mussel invasion of the Mississippi-Missouri river system. <i>Water Resources Research</i> , 2011 , 47,	5.4	26
29	Prediction of the spatial evolution and effects of control measures for the unfolding Haiti cholera outbreak. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	70
28	Catchment residence and travel time distributions: The master equation. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	180
27	Catchment travel time distributions and water flow in soils. <i>Water Resources Research</i> , 2011 , 47,	5.4	152
26	A transmission model of the 2010 cholera epidemic in Haiti. <i>Annals of Internal Medicine</i> , 2011 , 155, 403-4; author reply 404	8	6
25	Modelling human movement in cholera spreading along fluvial systems. <i>Ecohydrology</i> , 2011 , 4, 49-55	2.5	18
24	Spatial effects on species persistence and implications for biodiversity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 4346-51	11.5	55
23	On spatially explicit models of cholera epidemics. <i>Journal of the Royal Society Interface</i> , 2010 , 7, 321-33	4.1	133
22	Stochastic dynamics of cholera epidemics. <i>Physical Review E</i> , 2010 , 81, 051901	2.4	22
21	Impact of stochastic fluctuations in storage-discharge relations on streamflow distributions. <i>Water Resources Research</i> , 2010 , 46,	5.4	11
20	Transport in the hydrologic response: Travel time distributions, soil moisture dynamics, and the old water paradox. <i>Water Resources Research</i> , 2010 , 46,	5.4	182
19	Comparative study of ecohydrological streamflow probability distributions. <i>Water Resources Research</i> , 2010 , 46,	5.4	38
18	Potential impacts of precipitation change on large-scale patterns of tree diversity. <i>Water Resources Research</i> , 2010 , 46,	5.4	4
17	Inferences from catchment-scale tracer circulation experiments. <i>Journal of Hydrology</i> , 2009 , 369, 368-380		24

16	On neutral metacommunity patterns of river basins at different scales of aggregation. <i>Water Resources Research</i> , 2009 , 45,	5.4	22
15	On the geographic range of freshwater fish in river basins. <i>Water Resources Research</i> , 2009 , 45,	5.4	20
14	River networks as ecological corridors: A complex systems perspective for integrating hydrologic, geomorphologic, and ecologic dynamics. <i>Water Resources Research</i> , 2009 , 45,	5.4	119
13	Neutral metacommunity models predict fish diversity patterns in Mississippi-Missouri basin. <i>Nature</i> , 2008 , 453, 220-2	50.4	266
12	On the space-time evolution of a cholera epidemic. <i>Water Resources Research</i> , 2008 , 44,	5.4	96
11	Patterns of vegetation biodiversity: the roles of dispersal directionality and river network structure. <i>Journal of Theoretical Biology</i> , 2008 , 252, 221-9	2.3	36
10	River networks and ecological corridors: Reactive transport on fractals, migration fronts, hydrochory. <i>Water Resources Research</i> , 2007 , 43,	5.4	31
9	Transport at basin scales: 2. Applications. <i>Hydrology and Earth System Sciences</i> , 2006 , 10, 31-48	5.5	35
8	Transport at basin scales: 1. Theoretical framework. <i>Hydrology and Earth System Sciences</i> , 2006 , 10, 19-29	5.5	83
7	On the Lagrangian formulations of reactive solute transport in the hydrologic response. <i>Water Resources Research</i> , 2005 , 41,	5.4	41
6	Nonpoint source transport models from empiricism to coherent theoretical frameworks. <i>Ecological Modelling</i> , 2005 , 184, 19-35	3	13
5	Generation and application of river network analogues for use in ecology and evolution		3
4	SEHR-ECHO v1.0: a Spatially-Explicit Hydrologic Response model for ecohydrologic applications		2
3	The geography of COVID-19 spread in Italy and implications for the relaxation of confinement measures		4
2	Micro-hotspots of Risk in Urban Cholera Epidemics		3
1	Optimizing the spatio-temporal allocation of COVID-19 vaccines: Italy as a case study		3