

Amilcare Porporato

List of Publications by Year in descending order

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Version: 2024-02-01

226
papers

17,363
citations

20817

60
h-index

16650

123
g-index

249
all docs

249
docs citations

249
times ranked

15838
citing authors

#	ARTICLE	IF	CITATIONS
1	Water pulses and biogeochemical cycles in arid and semiarid ecosystems. <i>Oecologia</i> , 2004, 141, 221-235.	2.0	1,119
2	Environmental and stoichiometric controls on microbial carbon use efficiency in soils. <i>New Phytologist</i> , 2012, 196, 79-91.	7.3	1,046
3	Responses of soil microbial communities to water stress: results from a meta-analysis. <i>Ecology</i> , 2012, 93, 930-938.	3.2	830
4	Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress. <i>Advances in Water Resources</i> , 2001, 24, 707-723.	3.8	742
5	Stoichiometric controls on carbon, nitrogen, and phosphorus dynamics in decomposing litter. <i>Ecological Monographs</i> , 2010, 80, 89-106.	5.4	611
6	Soil carbon and nitrogen mineralization: Theory and models across scales. <i>Soil Biology and Biochemistry</i> , 2009, 41, 1355-1379.	8.8	598
7	Soil Water Balance and Ecosystem Response to Climate Change. <i>American Naturalist</i> , 2004, 164, 625-632.	2.1	554
8	The Global Stoichiometry of Litter Nitrogen Mineralization. <i>Science</i> , 2008, 321, 684-686.	12.6	526
9	Global resorption efficiencies and concentrations of carbon and nutrients in leaves of terrestrial plants. <i>Ecological Monographs</i> , 2012, 82, 205-220.	5.4	521
10	Probabilistic modelling of water balance at a point: the role of climate, soil and vegetation. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 1999, 455, 3789-3805.	2.1	482
11	Changes in rainfall seasonality in the tropics. <i>Nature Climate Change</i> , 2013, 3, 811-815.	18.8	464
12	Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress. <i>Advances in Water Resources</i> , 2001, 24, 725-744.	3.8	421
13	On the spatial and temporal links between vegetation, climate, and soil moisture. <i>Water Resources Research</i> , 1999, 35, 3709-3722.	4.2	314
14	A theoretical analysis of microbial eco-physiological and diffusion limitations to carbon cycling in drying soils. <i>Soil Biology and Biochemistry</i> , 2014, 73, 69-83.	8.8	220
15	Hydrologic controls on soil carbon and nitrogen cycles. I. Modeling scheme. <i>Advances in Water Resources</i> , 2003, 26, 45-58.	3.8	217
16	Optimizing stomatal conductance for maximum carbon gain under water stress: a meta-analysis across plant functional types and climates. <i>Functional Ecology</i> , 2011, 25, 456-467.	3.6	207
17	Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress. <i>Advances in Water Resources</i> , 2001, 24, 745-762.	3.8	183
18	The ecohydrological role of soil texture in a water-limited ecosystem. <i>Water Resources Research</i> , 2001, 37, 2863-2872.	4.2	181

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19	Hierarchy of models for meandering rivers and related morphodynamic processes. <i>Reviews of Geophysics</i> , 2007, 45, .	23.0	180
20	Preferential states in soil moisture and climate dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 8848-8851.	7.1	176
21	Hydraulic limits on maximum plant transpiration and the emergence of the safetyâ€œefficiency tradeâ€œoff. <i>New Phytologist</i> , 2013, 198, 169-178.	7.3	168
22	Basin-scale soil moisture dynamics and the probabilistic characterization of carrier hydrologic flows: Slow, leaching-prone components of the hydrologic response. <i>Water Resources Research</i> , 2007, 43, .	4.2	160
23	Preferential states of seasonal soil moisture: The impact of climate fluctuations. <i>Water Resources Research</i> , 2000, 36, 2209-2219.	4.2	132
24	The hysteretic evapotranspirationâ€œVapor pressure deficit relation. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 125-140.	3.0	128
25	Spring frost risk in a changing climate. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	124
26	A Review of Soil Moisture Dynamics: From Rainfall Infiltration to Ecosystem Response. <i>Environmental Engineering Science</i> , 2005, 22, 9-24.	1.6	121
27	On the long-term behavior of meandering rivers. <i>Water Resources Research</i> , 2005, 41, .	4.2	120
28	Coupled Dynamics of Photosynthesis, Transpiration, and Soil Water Balance. Part I: Upscaling from Hourly to Daily Level. <i>Journal of Hydrometeorology</i> , 2004, 5, 546-558.	1.9	119
29	A theoretical analysis of nonlinearities and feedbacks in soil carbon and nitrogen cycles. <i>Soil Biology and Biochemistry</i> , 2007, 39, 1542-1556.	8.8	112
30	Biological constraints on water transport in the soilâ€œplantâ€œatmosphere system. <i>Advances in Water Resources</i> , 2013, 51, 292-304.	3.8	110
31	Ecohydrology of Terrestrial Ecosystems. <i>BioScience</i> , 2010, 60, 898-907.	4.9	109
32	Hydrologic controls on soil carbon and nitrogen cycles. II. A case study. <i>Advances in Water Resources</i> , 2003, 26, 59-70.	3.8	106
33	On the effects of seasonality on soil water balance and plant growth. <i>Water Resources Research</i> , 2012, 48, .	4.2	101
34	Nonlinear storageâ€œdischarge relations and catchment streamflow regimes. <i>Water Resources Research</i> , 2009, 45, .	4.2	100
35	Ecohydrology-a challenging multidisciplinary research perspective / Ecohydrologie: une perspective stimulante de recherche multidisciplinaire. <i>Hydrological Sciences Journal</i> , 2002, 47, 811-821.	2.6	97
36	Onset of water stress, hysteresis in plant conductance, and hydraulic lift: Scaling soil water dynamics from millimeters to meters. <i>Water Resources Research</i> , 2008, 44, .	4.2	92

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37	Stochastic soil moisture dynamics along a hillslope. <i>Journal of Hydrology</i> , 2003, 272, 264-275.	5.4	91
38	Reduced resilience as an early warning signal of forest mortality. <i>Nature Climate Change</i> , 2019, 9, 880-885.	18.8	87
39	Natural streamflow regime alterations: Damming of the Piave river basin (Italy). <i>Water Resources Research</i> , 2010, 46, .	4.2	86
40	Role of microtopography in rainfall-runoff partitioning: An analysis using idealized geometry. <i>Water Resources Research</i> , 2010, 46, .	4.2	86
41	Optimization of stomatal conductance for maximum carbon gain under dynamic soil moisture. <i>Advances in Water Resources</i> , 2013, 62, 90-105.	3.8	84
42	Soil Moisture Feedbacks on Convection Triggers: The Role of Soil-Plant Hydrodynamics. <i>Journal of Hydrometeorology</i> , 2009, 10, 96-112.	1.9	83
43	Modelling soil carbon and nitrogen cycles during land use change. A review. <i>Agronomy for Sustainable Development</i> , 2011, 31, 251-274.	5.3	83
44	Analytical models of soil and litter decomposition: Solutions for mass loss and time-dependent decay rates. <i>Soil Biology and Biochemistry</i> , 2012, 50, 66-76.	8.8	80
45	Climatic, ecophysiological, and phenological controls on plant ecohydrological strategies in seasonally dry ecosystems. <i>Ecohydrology</i> , 2015, 8, 660-681.	2.4	79
46	On the spectrum of soil moisture from hourly to interannual scales. <i>Water Resources Research</i> , 2007, 43, .	4.2	77
47	Modeling soil moisture and oxygen effects on soil biogeochemical cycles including dissimilatory nitrate reduction to ammonium (DNRA). <i>Advances in Water Resources</i> , 2013, 62, 106-124.	3.8	77
48	Modelling C3 and C4 photosynthesis under water-stressed conditions. <i>Plant and Soil</i> , 2008, 313, 187-203.	3.7	73
49	Stochastic Dynamics of Plant-Water Interactions. <i>Annual Review of Ecology, Evolution, and Systematics</i> , 2007, 38, 767-791.	8.3	72
50	Superstatistics of hydro-climatic fluctuations and interannual ecosystem productivity. <i>Geophysical Research Letters</i> , 2006, 33, .	4.0	71
51	Analysis of rainfall seasonality from observations and climate models. <i>Climate Dynamics</i> , 2015, 44, 3281-3301.	3.8	70
52	Probabilistic characterization of base flows in river basins: Roles of soil, vegetation, and geomorphology. <i>Water Resources Research</i> , 2007, 43, .	4.2	69
53	Intensive or extensive use of soil moisture: Plant strategies to cope with stochastic water availability. <i>Geophysical Research Letters</i> , 2001, 28, 4495-4497.	4.0	68
54	Beyond the SCS-CN method: A theoretical framework for spatially lumped rainfall-runoff response. <i>Water Resources Research</i> , 2016, 52, 4608-4627.	4.2	67

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55	Increasing atmospheric humidity and CO ₂ concentration alleviate forest mortality risk. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9918-9923.	7.1	66
56	Space-time modeling of soil moisture: Stochastic rainfall forcing with heterogeneous vegetation. Water Resources Research, 2006, 42, .	4.2	65
57	Transient soil moisture dynamics and climate change in Mediterranean ecosystems. Water Resources Research, 2008, 44, .	4.2	65
58	Projected changes of rainfall seasonality and dry spells in a high greenhouse gas emissions scenario. Climate Dynamics, 2016, 46, 1331-1350.	3.8	65
59	Ecohydrological model of flow duration curves and annual minima. Water Resources Research, 2008, 44, .	4.2	64
60	Soil moisture and plant stress dynamics along the Kalahari precipitation gradient. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	63
61	Signatures of large-scale soil moisture dynamics on streamflow statistics across U.S. climate regimes. Water Resources Research, 2007, 43, .	4.2	62
62	Strategies of a Bornean tropical rainforest water use as a function of rainfall regime: isohydric or anisohydric?. Plant, Cell and Environment, 2012, 35, 61-71.	5.7	62
63	Hydrologic and atmospheric controls on initiation of convective precipitation events. Water Resources Research, 2007, 43, .	4.2	60
64	Water cycling in a Bornean tropical rain forest under current and projected precipitation scenarios. Water Resources Research, 2004, 40, .	4.2	59
65	Mean first passage times of processes driven by white shot noise. Physical Review E, 2001, 63, 036105.	2.1	56
66	Irreversibility and Fluctuation Theorem in Stationary Time Series. Physical Review Letters, 2007, 98, 094101.	7.8	56
67	A stochastic model for daily subsurface CO ₂ concentration and related soil respiration. Advances in Water Resources, 2008, 31, 987-994.	3.8	56
68	Analysis of soil carbon transit times and age distributions using network theories. Journal of Geophysical Research, 2009, 114, .	3.3	56
69	Impact of hydroclimatic fluctuations on the soil water balance. Water Resources Research, 2006, 42, .	4.2	54
70	Coupled Dynamics of Photosynthesis, Transpiration, and Soil Water Balance. Part II: Stochastic Analysis and Ecohydrological Significance. Journal of Hydrometeorology, 2004, 5, 559-566.	1.9	53
71	Soil carbon and nitrogen dynamics in southern African savannas: the effect of vegetation-induced patch-scale heterogeneities and large scale rainfall gradients. Climatic Change, 2009, 94, 63-76.	3.6	53
72	From rainfed agriculture to stress-avoidance irrigation: I. A generalized irrigation scheme with stochastic soil moisture. Advances in Water Resources, 2011, 34, 263-271.	3.8	53

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73	Diurnal cloud cycle biases in climate models. <i>Nature Communications</i> , 2017, 8, 2269.	12.8	53
74	Stochastic modeling of soil salinity. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	49
75	Two phenomenological constants explain similarity laws in stably stratified turbulence. <i>Physical Review E</i> , 2014, 89, 023007.	2.1	48
76	Sizing a rainwater harvesting cistern by minimizing costs. <i>Journal of Hydrology</i> , 2016, 541, 1340-1347.	5.4	48
77	Vegetation response to rainfall seasonality and interannual variability in tropical dry forests. <i>Hydrological Processes</i> , 2016, 30, 3583-3595.	2.6	48
78	Representation of space-time variability of soil moisture. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2005, 461, 4035-4055.	2.1	47
79	Land and atmospheric controls on initiation and intensity of moist convection: <sc>CAPE</sc> dynamics and <sc>LCL</sc> crossings. <i>Water Resources Research</i> , 2015, 51, 8476-8493.	4.2	47
80	Effect of rainfall seasonality on carbon storage in tropical dry ecosystems. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2013, 118, 1156-1167.	3.0	46
81	Impacts of solar intermittency on future photovoltaic reliability. <i>Nature Communications</i> , 2020, 11, 4781.	12.8	46
82	Comparative study of ecohydrological streamflow probability distributions. <i>Water Resources Research</i> , 2010, 46, .	4.2	45
83	Ecohydrology of street trees: design and irrigation requirements for sustainable water use. <i>Ecohydrology</i> , 2014, 7, 508-523.	2.4	45
84	Soil nutrient cycles as a nonlinear dynamical system. <i>Nonlinear Processes in Geophysics</i> , 2004, 11, 589-598.	1.3	44
85	Phase Transitions Driven by State-Dependent Poisson Noise. <i>Physical Review Letters</i> , 2004, 92, 110601.	7.8	44
86	Ecohydrological controls on summertime convective rainfall triggers. <i>Global Change Biology</i> , 2007, 13, 887-896.	9.5	44
87	Stochastic soil water balance under seasonal climates. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20140623.	2.1	43
88	The role of tectonic uplift, climate, and vegetation in the long-term terrestrial phosphorous cycle. <i>Biogeosciences</i> , 2010, 7, 2025-2038.	3.3	42
89	Hydrologic response of an alpine watershed: Application of a meteorological wireless sensor network to understand streamflow generation. <i>Water Resources Research</i> , 2011, 47, .	4.2	42
90	A dynamical system perspective on plant hydraulic failure. <i>Water Resources Research</i> , 2014, 50, 5170-5183.	4.2	42

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91	Optimal plant water-use strategies under stochastic rainfall. <i>Water Resources Research</i> , 2014, 50, 5379-5394.	4.2	41
92	Ecohydrological modeling in agroecosystems: Examples and challenges. <i>Water Resources Research</i> , 2015, 51, 5081-5099.	4.2	41
93	On the seasonal dynamics of mean soil moisture. <i>Journal of Geophysical Research</i> , 2002, 107, ACL 8-1.	3.3	40
94	Traditional and microirrigation with stochastic soil moisture. <i>Water Resources Research</i> , 2010, 46, .	4.2	40
95	Soil heterogeneity in lumped mineralization-immobilization models. <i>Soil Biology and Biochemistry</i> , 2008, 40, 1137-1148.	8.8	38
96	Drought-induced mortality of a Bornean tropical rain forest amplified by climate change. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	38
97	From rainfed agriculture to stress-avoidance irrigation: II. Sustainability, crop yield, and profitability. <i>Advances in Water Resources</i> , 2011, 34, 272-281.	3.8	37
98	Impact of climate variability on the vegetation water stress. <i>Journal of Geophysical Research</i> , 2000, 105, 18013-18025.	3.3	36
99	Coupled carbon and water fluxes in CAM photosynthesis: modeling quantification of water use efficiency and productivity. <i>Plant and Soil</i> , 2014, 383, 111-138.	3.7	35
100	A dynamical system approach to soil salinity and sodicity. <i>Advances in Water Resources</i> , 2015, 83, 68-76.	3.8	34
101	Cloud cooling effects of afforestation and reforestation at midlatitudes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	34
102	Interaction between large and small scales in the canopy sublayer. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	33
103	Revisiting rainfall clustering and intermittency across different climatic regimes. <i>Water Resources Research</i> , 2009, 45, .	4.2	33
104	Coupled moisture and microbial dynamics in unsaturated soils. <i>Water Resources Research</i> , 2007, 43, .	4.2	32
105	Manning's formula and Strickler's scaling explained by a co-spectral budget model. <i>Journal of Fluid Mechanics</i> , 2017, 812, 1189-1212.	3.4	32
106	Common hydrologic and biogeochemical controls along the soil-stream continuum. <i>Hydrological Processes</i> , 2011, 25, 1355-1360.	2.6	31
107	Accounting for landscape heterogeneity improves spatial predictions of tree vulnerability to drought. <i>New Phytologist</i> , 2018, 220, 132-146.	7.3	31
108	Quantifying Asynchronicity of Precipitation and Potential Evapotranspiration in Mediterranean Climates. <i>Geophysical Research Letters</i> , 2019, 46, 14692-14701.	4.0	31

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109	Noise-induced vegetation patterns in fire-prone savannas. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	30
110	Maximum discharge from snowmelt in a changing climate. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	30
111	Unified representation of the C3, C4, and CAM photosynthetic pathways with the Photo3 model. <i>Ecological Modelling</i> , 2018, 384, 173-187.	2.5	30
112	The delusive accuracy of global irrigation water withdrawal estimates. <i>Nature Communications</i> , 2022, 13, .	12.8	30
113	Detecting determinism and nonlinearity in river-flow time series. <i>Hydrological Sciences Journal</i> , 2003, 48, 763-780.	2.6	29
114	Probabilistic dynamics of soil nitrate: Coupling of ecohydrological and biogeochemical processes. <i>Water Resources Research</i> , 2008, 44, .	4.2	29
115	Probabilistic dynamics of some jump-diffusion systems. <i>Physical Review E</i> , 2006, 73, 026108.	2.1	28
116	Intertime jump statistics of state-dependent Poisson processes. <i>Physical Review E</i> , 2007, 75, 011119.	2.1	28
117	An ecohydrological perspective on drought-induced forest mortality. <i>Journal of Geophysical Research G: Biogeosciences</i> , 2014, 119, 965-981.	3.0	28
118	The effects of elevated atmospheric CO2 and nitrogen amendments on subsurface CO2 production and concentration dynamics in a maturing pine forest. <i>Biogeochemistry</i> , 2009, 94, 271-287.	3.5	27
119	Modeling the vegetation-atmosphere carbon dioxide and water vapor interactions along a controlled CO2 gradient. <i>Ecological Modelling</i> , 2011, 222, 653-665.	2.5	27
120	A note on groundwater flow along a hillslope. <i>Water Resources Research</i> , 2004, 40, .	4.2	26
121	Effect of different jump distributions on the dynamics of jump processes. <i>Physical Review E</i> , 2010, 81, 061133.	2.1	26
122	Nonlinear dynamics of the CAM circadian rhythm in response to environmental forcing. <i>Journal of Theoretical Biology</i> , 2015, 368, 83-94.	1.7	26
123	Atmospheric Boundary-Layer Dynamics with Constant Bowen Ratio. <i>Boundary-Layer Meteorology</i> , 2009, 132, 227-240.	2.3	25
124	Ecohydrological model for the quantification of ecosystem services provided by urban street trees. <i>Urban Ecosystems</i> , 2018, 21, 489-504.	2.4	25
125	Causality across rainfall time scales revealed by continuous wavelet transforms. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	24
126	The rainfall-no rainfall transition in a coupled land-convective atmosphere system. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	24

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127	Channelization cascade in landscape evolution. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1375-1382.	7.1	24
128	State-dependent fire models and related renewal processes. Physical Review E, 2006, 74, 041112.	2.1	23
129	Stochastic modelling of phytoremediation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 3188-3205.	2.1	23
130	An ecohydrological model of malaria outbreaks. Hydrology and Earth System Sciences, 2012, 16, 2759-2769.	4.9	23
131	On the theory of drainage area for regular and non-regular points. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20170693.	2.1	23
132	Rainfall intensification increases the contribution of rewetting pulses to soil heterotrophic respiration. Biogeosciences, 2020, 17, 4007-4023.	3.3	23
133	On the probabilistic structure of water age. Water Resources Research, 2015, 51, 3588-3600.	4.2	22
134	A dynamical systems framework for crop models: Toward optimal fertilization and irrigation strategies under climatic variability. Ecological Modelling, 2017, 365, 80-92.	2.5	22
135	A Class of Exact Solutions of the Boussinesq Equation for Horizontal and Sloping Aquifers. Water Resources Research, 2018, 54, 767-778.	4.2	22
136	The influence of stochastic soil moisture dynamics on gaseous emissions of NO, N ₂ O, and N ₂ . Hydrological Sciences Journal, 2003, 48, 781-798.	2.6	21
137	Similarity solutions of nonlinear diffusion problems related to mathematical hydraulics and the Fokker-Planck equation. Physical Review E, 2004, 70, 056303.	2.1	21
138	Probabilistic modeling of nitrogen and carbon dynamics in water-limited ecosystems. Ecological Modelling, 2004, 179, 205-219.	2.5	21
139	Simplified stochastic soil-moisture models: a look at infiltration. Hydrology and Earth System Sciences, 2006, 10, 861-871.	4.9	21
140	A stochastic process for the interannual snow storage and melting dynamics. Journal of Geophysical Research, 2007, 112, .	3.3	21
141	Probabilistic description of crop development and irrigation water requirements with stochastic rainfall. Water Resources Research, 2013, 49, 1466-1482.	4.2	21
142	Linking age, survival, and transit time distributions. Water Resources Research, 2015, 51, 8316-8330.	4.2	21
143	Ecohydrology of Agroecosystems: Quantitative Approaches Towards Sustainable Irrigation. Bulletin of Mathematical Biology, 2015, 77, 298-318.	1.9	21
144	The role of plant water storage and hydraulic strategies in relation to soil moisture availability. Plant and Soil, 2017, 419, 503-521.	3.7	21

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145	Probabilistic description of topographic slope and aspect. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	20
146	Olive yield as a function of soil moisture dynamics. <i>Ecohydrology</i> , 2012, 5, 99-107.	2.4	20
147	Ecohydrological flow networks in the subsurface. <i>Ecohydrology</i> , 2014, 7, 1073-1078.	2.4	19
148	Interplay of climate seasonality and soil moistureâ€”rainfall feedback. <i>Water Resources Research</i> , 2014, 50, 6053-6066.	4.2	18
149	Precipitation, dynamical intermittency, and sporadic randomness. <i>Advances in Water Resources</i> , 2010, 33, 923-932.	3.8	17
150	Prescription-induced jump distributions in multiplicative Poisson processes. <i>Physical Review E</i> , 2011, 83, 061119.	2.1	17
151	From random variability to ordered structures: a search for general synthesis in ecohydrology. <i>Ecohydrology</i> , 2013, 6, 333-342.	2.4	17
152	Hydrological Spaces of Longâ€”Term Catchment Water Balance. <i>Water Resources Research</i> , 2019, 55, 10747-10764.	4.2	17
153	The role of hydrology on enhanced weathering for carbon sequestration I. Modeling rock-dissolution reactions coupled to plant, soil moisture, and carbon dynamics. <i>Advances in Water Resources</i> , 2021, 154, 103934.	3.8	17
154	Contrasting effects of aridity and seasonality on global salinization. <i>Nature Geoscience</i> , 2022, 15, 375-381.	12.9	17
155	The Doomsday Equation and 50 years beyond: new perspectives on the humanâ€”water system. <i>Wiley Interdisciplinary Reviews: Water</i> , 2015, 2, 407-414.	6.5	16
156	Forest soil carbon and nitrogen cycles under biomass harvest: Stability, transient response, and feedback. <i>Ecological Modelling</i> , 2016, 329, 64-76.	2.5	16
157	Linking parametric and water-balance models of the Budyko and Turc spaces. <i>Advances in Water Resources</i> , 2019, 134, 103435.	3.8	16
158	Stochastic rainfall-runoff model with explicit soil moisture dynamics. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20150389.	2.1	15
159	Framework for eventâ€”based semidistributed modeling that unifies the SCSâ€”CN method, VIC, PDM, and TOPMODEL. <i>Water Resources Research</i> , 2016, 52, 7036-7052.	4.2	15
160	Impact of ecohydrological fluctuations on iron-redox cycling. <i>Soil Biology and Biochemistry</i> , 2019, 133, 188-195.	8.8	15
161	Linear layout of multiple flow-direction networks for landscape-evolution simulations. <i>Environmental Modelling and Software</i> , 2020, 133, 104804.	4.5	15
162	Optimal control solutions to sodic soil reclamation. <i>Advances in Water Resources</i> , 2016, 91, 37-45.	3.8	14

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163	Hydrologic Transport of Dissolved Inorganic Carbon and Its Control on Chemical Weathering. <i>Journal of Geophysical Research F: Earth Surface</i> , 2017, 122, 2016-2032.	2.8	14
164	The Energy Side of Budyko: Surface Energy Partitioning From Hydrological Observations. <i>Geophysical Research Letters</i> , 2019, 46, 7456-7463.	4.0	14
165	Wetness controls on global chemical weathering. <i>Environmental Research Communications</i> , 2020, 2, 085005.	2.3	14
166	The competitive advantage of a constitutive CAM species over a C ₄ grass species under drought and CO ₂ enrichment. <i>Ecosphere</i> , 2019, 10, e02721.	2.2	13
167	Human well-being and per capita energy use. <i>Ecosphere</i> , 2022, 13, .	2.2	13
168	Impact of stochastic fluctuations in storage-discharge relations on streamflow distributions. <i>Water Resources Research</i> , 2010, 46, .	4.2	12
169	The Spatio-temporal Statistical Structure and Ergodic Behaviour of Scalar Turbulence Within a Rod Canopy. <i>Boundary-Layer Meteorology</i> , 2015, 157, 447-460.	2.3	12
170	Variational analysis of landscape elevation and drainage networks. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020, 476, 20190775.	2.1	12
171	A fast-slow model of banded vegetation pattern formation in drylands. <i>Physica D: Nonlinear Phenomena</i> , 2020, 410, 132534.	2.8	12
172	On the dynamic smoothing of mountains. <i>Geophysical Research Letters</i> , 2017, 44, 5531-5539.	4.0	11
173	The Formation of Clay-Enriched Horizons by Lessivage. <i>Geophysical Research Letters</i> , 2018, 45, 7588-7595.	4.0	11
174	The effect of accelerated soil erosion on hillslope morphology. <i>Earth Surface Processes and Landforms</i> , 2019, 44, 3007-3019.	2.5	11
175	Modelling nonlinear dynamics of Crassulacean acid metabolism productivity and water use for global predictions. <i>Plant, Cell and Environment</i> , 2021, 44, 34-48.	5.7	11
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