Luca Ridolfi

List of Publications by Citations

269 papers	10,791 citations	54 h-index	94 g-index
277 ext. papers	12,126 ext. citations	4.5 avg, IF	6.55 L-index

#	Paper	IF	Citations
269	Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress: II. Probabilistic soil moisture dynamics. *Advances in Water Resources*, **2001**, 24, 707-723	4.7	548
268	The Effect of Vegetation Density on Canopy Sub-Layer Turbulence. *Boundary-Layer Meteorology*, **2004**, 111, 565-587	3.4	471
267	Hyporheic flow and transport processes: Mechanisms, models, and biogeochemical implications. *Reviews of Geophysics*, **2014**, 52, 603-679	23.1	468
266	Probabilistic modelling of water balance at a point: the role of climate, soil and vegetation. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **1999**, 455, 3789-3805	2.4	428
265	Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress: III. Vegetation water stress. *Advances in Water Resources*, **2001**, 24, 725-744	4.7	357
264	On the spatial and temporal links between vegetation, climate, and soil moisture. *Water Resources Research*, **1999**, 35, 3709-3722	5.4	275
263	Plants in water-controlled ecosystems: active role in hydrologic processes and response to water stress. *Advances in Water Resources*, **2001**, 24, 695-705	4.7	255
262	Feeding humanity through global food trade. *Earth's Future*, **2014**, 2, 458-469	7.9	202
261	Mathematical models of vegetation pattern formation in ecohydrology. *Reviews of Geophysics*, **2009**, 47,	23.1	201
260	Ecohydrology of water-controlled ecosystems. *Advances in Water Resources*, **2002**, 25, 1335-1348	4.7	200
259	Nutrient cycling in bedform induced hyporheic zones. *Geochimica Et Cosmochimica Acta*, **2012**, 84, 47-61	5.5	152
258	Significance of the riparian vegetation dynamics on meandering river morphodynamics. *Water Resources Research*, **2007**, 43,	5.4	148
257	Hierarchy of models for meandering rivers and related morphodynamic processes. *Reviews of Geophysics*, **2007**, 45,	23.1	145
256	MODELING THE INTERACTIONS BETWEEN RIVER MORPHODYNAMICS AND RIPARIAN VEGETATION. *Reviews of Geophysics*, **2013**, 51, 379-414	23.1	143
255	Noise-induced stability in dryland plant ecosystems. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 10819-22	11.5	140
254	Sinuosity-driven hyporheic exchange in meandering rivers. *Geophysical Research Letters*, **2006**, 33, n/a-n/a	4.9	139
253	Nonlinear analysis of river flow time sequences. *Water Resources Research*, **1997**, 33, 1353-1367	5.4	132

252	A probabilistic analysis of fire-induced tree-grass coexistence in savannas. *American Naturalist*, **2006**, 167, E79-87	3.7	122
251	Preferential states of seasonal soil moisture: The impact of climate fluctuations. *Water Resources Research*, **2000**, 36, 2209-2219	5.4	118
250	Bedform-induced hyporheic exchange with unsteady flows. *Advances in Water Resources*, **2007**, 30, 148-156	4.9	117
249	Biogeochemical zonation due to intrameander hyporheic flow. *Water Resources Research*, **2010**, 46,	5.4	112
248	Noise-Induced Phenomena in the Environmental Sciences **2011**,		104
247	On the long-term behavior of meandering rivers. *Water Resources Research*, **2005**, 41,	5.4	100
246	Recent history and geography of virtual water trade. *PLoS ONE*, **2013**, 8, e55825	3.7	97
245	Challenges in humid land ecohydrology: Interactions of water table and unsaturated zone with climate, soil, and vegetation. *Water Resources Research*, **2007**, 43,	5.4	97
244	Reduction of the hyporheic zone volume due to the stream-aquifer interaction. *Geophysical Research Letters*, **2008**, 35,	4.9	95
243	An analytical model to relate the vertical root distribution to climate and soil properties. *Geophysical Research Letters*, **2006**, 33, n/a-n/a	4.9	94
242	Drivers of the virtual water trade. *Water Resources Research*, **2014**, 50, 17-28	5.4	91
241	Riparian vegetation distribution induced by river flow variability: A stochastic approach. *Water Resources Research*, **2006**, 42,	5.4	91
240	A continuous time random walk approach to the stream transport of solutes. *Water Resources Research*, **2007**, 43,	5.4	88
239	A review of nature-based solutions for greywater treatment: Applications, hydraulic design, and environmental benefits. *Science of the Total Environment*, **2020**, 711, 134731	10.2	88
238	Turbulent boundary layers over permeable walls: scaling and near-wall structure. *Journal of Fluid Mechanics*, **2011**, 687, 141-170	3.7	86
237	Ecohydrology of Terrestrial Ecosystems. *BioScience*, **2010**, 60, 898-907	5.7	85
236	Effect of vegetation–water table feedbacks on the stability and resilience of plant ecosystems. *Water Resources Research*, **2006**, 42,	5.4	85
235	Multivariate nonlinear prediction of river flows. *Journal of Hydrology*, **2001**, 248, 109-122	6	83

234	Stochastic soil moisture dynamics along a hillslope. *Journal of Hydrology*, **2003**, 272, 264-275	6	81
233	Tree-grass coexistence in Savannas: The role of spatial dynamics and climate fluctuations. *Geophysical Research Letters*, **1999**, 26, 247-250	4.9	79
232	Does globalization of water reduce societal resilience to drought?. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	71
231	Significance of cutoff in meandering river dynamics. *Journal of Geophysical Research*, **2008**, 113,		71
230	Fuzzy Approach for Analysis of Pipe Networks. *Journal of Hydraulic Engineering*, **2002**, 128, 93-101	1.8	69
229	Ecohydrology of groundwater-dependent ecosystems: 1. Stochastic water table dynamics. *Water Resources Research*, **2009**, 45,	5.4	67
228	Global sensitivity of high-resolution estimates of crop water footprint. *Water Resources Research*, **2015**, 51, 8257-8272	5.4	64
227	On the temporal variability of the virtual water network. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	64
226	Intra-meander hyporheic flow in alluvial rivers. *Water Resources Research*, **2008**, 44,	5.4	63
225	Global spatio-temporal patterns in human migration: a complex network perspective. *PLoS ONE*, **2013**, 8, e53723	3.7	62
224	Global virtual water trade and the hydrological cycle: patterns, drivers, and socio-environmental impacts. *Environmental Research Letters*, **2019**, 14, 053001	6.2	62
223	Intensive or extensive use of soil moisture: Plant strategies to cope with stochastic water availability. *Geophysical Research Letters*, **2001**, 28, 4495-4497	4.9	61
222	New Modularity-Based Approach to Segmentation of Water Distribution Networks. *Journal of Hydraulic Engineering*, **2014**, 140, 04014049	1.8	59
221	Modelling river and riparian vegetation interactions and related importance for sustainable ecosystem management. *Aquatic Sciences*, **2009**, 71, 266-278	2.5	59
220	Soil moisture and plant stress dynamics along the Kalahari precipitation gradient. *Journal of Geophysical Research*, **2003**, 108, n/a-n/a		59
219	Can diversity in root architecture explain plant water use efficiency? A modeling study. *Ecological Modelling*, **2015**, 312, 200-210	3	56
218	Effect of river flow fluctuations on riparian vegetation dynamics: Processes and models. *Advances in Water Resources*, **2017**, 110, 29-50	4.7	55
217	Modeling the impact of river damming on riparian vegetation. *Journal of Hydrology*, **2011**, 396, 302-312	6	55

216	Fertility Island Formation and Evolution in Dryland Ecosystems. *Ecology and Society*, **2008**, 13,	4.1	54
215	Water footprint of a large-sized food company: The case of Barilla pasta production. *Water Resources and Industry*, **2013**, 1-2, 7-24	4.5	52
214	Quantifying the impact of groundwater discharge on the surface–subsurface exchange. *Hydrological Processes*, **2009**, 23, 2108-2116	3.3	52
213	Mean first passage times of processes driven by white shot noise. *Physical Review E*, **2001**, 63, 036105	2.4	51
212	Climate dynamics: a network-based approach for the analysis of global precipitation. *PLoS ONE*, **2013**, 8, e71129	3.7	49
211	A comparison of nonlinear flood forecasting methods. *Water Resources Research*, **2003**, 39,	5.4	49
210	CLUES TO THE EXISTENCE OF DETERMINISTIC CHAOS IN RIVER FLOW. *International Journal of Modern Physics B*, **1996**, 10, 1821-1862	1.1	49
209	Transient cerebral hypoperfusion and hypertensive events during atrial fibrillation: a plausible mechanism for cognitive impairment. *Scientific Reports*, **2016**, 6, 28635	4.9	48
208	Influence of river meandering dynamics on riparian vegetation pattern formation. *Journal of Geophysical Research*, **2006**, 111,		48
207	Global effects of local food-production crises: a virtual water perspective. *Scientific Reports*, **2016**, 6, 18803	4.9	47
206	Vegetation patterns induced by random climate fluctuations. *Geophysical Research Letters*, **2006**, 33,	4.9	47
205	Analysis of the small-scale structure of turbulence on smooth and rough walls. *Physics of Fluids*, **2003**, 15, 35-46	4.4	46
204	Nonlinear analysis of the geometry of meandering rivers. *Geophysical Research Letters*, **2005**, 32,	4.9	45
203	Estimation of the dispersion coefficient in rivers with riparian vegetation. *Advances in Water Resources*, **2009**, 32, 78-87	4.7	44
202	Ecohydrology of groundwater-dependent ecosystems: 2. Stochastic soil moisture dynamics. *Water Resources Research*, **2009**, 45,	5.4	43
201	A flow resistance model for assessing the impact of vegetation on flood routing mechanics. *Water Resources Research*, **2011**, 47,	5.4	42
200	An experimental contribution to near-wall measurements by means of a special laser Doppler anemometry technique. *Experiments in Fluids*, **2002**, 32, 366-375	2.5	42
199	Spatial organization and drivers of the virtual water trade: a community-structure analysis. *Environmental Research Letters*, **2012**, 7, 034007	6.2	41

198	Patterns as indicators of productivity enhancement by facilitation and competition in dryland vegetation. *Journal of Geophysical Research*, **2006**, 111,		41
197	Coupled stochastic dynamics of water table and soil moisture in bare soil conditions. *Water Resources Research*, **2008**, 44,	5.4	40
196	Small-scale permeability heterogeneity has negligible effects on nutrient cycling in streambeds. *Geophysical Research Letters*, **2013**, 40, 1118-1122	4.9	39
195	Interplay among river meandering, discharge stochasticity and riparian vegetation. *Journal of Hydrology*, **2010**, 382, 138-144	6	39
194	Effect of rainfall interannual variability on the stability and resilience of dryland plant ecosystems. *Water Resources Research*, **2007**, 43,	5.4	39
193	Vegetation dynamics induced by phreatophyte--aquifer interactions. *Journal of Theoretical Biology*, **2007**, 248, 301-10	2.3	38
192	On the seasonal dynamics of mean soil moisture. *Journal of Geophysical Research*, **2002**, 107, ACL 8-1		38
191	Solution of nonlinear initial-boundary value problems by sinc collocation-interpolation methods. *Computers and Mathematics With Applications*, **1995**, 29, 15-28	2.7	38
190	Biofilm-induced bioclogging produces sharp interfaces in hyporheic flow, redox conditions, and microbial community structure. *Geophysical Research Letters*, **2017**, 44, 4917-4925	4.9	35
189	National water, food, and trade modeling framework: The case of Egypt. *Science of the Total Environment*, **2018**, 639, 485-496	10.2	35
188	Duration and frequency of water stress in vegetation: An analytical model. *Water Resources Research*, **2000**, 36, 2297-2307	5.4	35
187	A Fast Track approach to deal with the temporal dimension of crop water footprint. *Environmental Research Letters*, **2017**, 12, 074010	6.2	34
186	Source identification in river pollution problems: A geostatistical approach. *Water Resources Research*, **2005**, 41,	5.4	34
185	Modeling hyporheic exchange with unsteady stream discharge and bedform dynamics. *Water Resources Research*, **2013**, 49, 4089-4099	5.4	33
184	Local and global perspectives on the virtual water trade. *Hydrology and Earth System Sciences*, **2013**, 17, 1205-1215	5.5	33
183	Effect of streamflow stochasticity on bedform-driven hyporheic exchange. *Advances in Water Resources*, **2010**, 33, 1367-1374	4.7	33
182	An experimental investigation of turbulent flows over a hilly surface. *Physics of Fluids*, **2007**, 19, 036601	4.4	33
181	The signature of randomness in riparian plant root distributions. *Geophysical Research Letters*, **2015**, 42, 7098-7106	4.9	32

180	Unsteady overland flow on flat surfaces induced by spatial permeability contrasts. *Advances in Water Resources*, **2011**, 34, 1049-1058	4.7	32
179	Gravity-driven water exchange between streams and hyporheic zones. *Geophysical Research Letters*, **2009**, 36,	4.9	31
178	Biodiversity enhancement induced by environmental noise. *Journal of Theoretical Biology*, **2008**, 255, 332-7	2.3	30
177	Interaction between large and small scales in the canopy sublayer. *Geophysical Research Letters*, **2004**, 31, n/a-n/a	4.9	30
176	Impact of climate variability on the vegetation water stress. *Journal of Geophysical Research*, **2000**, 105, 18013-18025		30
175	To trade or not to trade: Link prediction in the virtual water network. *Advances in Water Resources*, **2017**, 110, 528-537	4.7	29
174	Water and solute exchange through flat streambeds induced by large turbulent eddies. *Journal of Hydrology*, **2011**, 402, 290-296	6	29
173	Modelling the response of laboratory horizontal flow constructed wetlands to unsteady organic loads with HYDRUS-CWM1. *Ecological Engineering*, **2014**, 68, 209-213	3.9	28
172	Role of discharge variability on pseudomeandering channel morphodynamics: Results from laboratory experiments. *Journal of Geophysical Research*, **2010**, 115,		28
171	Tailoring Centrality Metrics for Water Distribution Networks. *Water Resources Research*, **2019**, 55, 2348-2369	5.4	28
170	A novel infrastructure modularity index for the segmentation of water distribution networks. *Water Resources Research*, **2014**, 50, 7648-7661	5.4	27
169	Higher ventricular rate during atrial fibrillation relates to increased cerebral hypoperfusions and hypertensive events. *Scientific Reports*, **2019**, 9, 3779	4.9	26
168	Impact of atrial fibrillation on the cardiovascular system through a lumped-parameter approach. *Medical and Biological Engineering and Computing*, **2014**, 52, 905-920	3.1	26
167	Noise-induced vegetation patterns in fire-prone savannas. *Journal of Geophysical Research*, **2007**, 112,		26
166	Impact of watershed topography on hyporheic exchange. *Advances in Water Resources*, **2016**, 94, 400-411	4.7	25
165	Turbulent friction in flows over permeable walls. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	25
164	Complex Networks Unveiling Spatial Patterns in Turbulence. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2016**, 26, 1650223	2	25
163	Detecting determinism and nonlinearity in river-flow time series. *Hydrological Sciences Journal*, **2003**, 48, 763-780	3.5	24

162	Ice ripple formation at large Reynolds numbers. *Journal of Fluid Mechanics*, **2012**, 694, 225-251	3.7	23
161	Stochastic description of water table fluctuations in wetlands. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	23
160	Measuring economic water scarcity in agriculture: a cross-country empirical investigation. *Environmental Science and Policy*, **2020**, 114, 73-85	6.2	23
159	A change of perspective in network centrality. *Scientific Reports*, **2018**, 8, 15269	4.9	23
158	Network structure classification and features of water distribution systems. *Water Resources Research*, **2017**, 53, 3407-3423	5.4	22
157	Modelling and subject-specific validation of the heart-arterial tree system. *Annals of Biomedical Engineering*, **2015**, 43, 222-37	4.7	22
156	Visibility graph analysis of wall turbulence time-series. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2018**, 382, 1-11	2.3	22
155	Community detection as a tool for complex pipe network clustering. *Europhysics Letters*, **2013**, 103, 48001	1.6	22
154	Stochastic modelling of DO and BOD components in a stream with random inputs. *Advances in Water Resources*, **2006**, 29, 1341-1350	4.7	22
153	Flood reduction as an ecosystem service of constructed wetlands for combined sewer overflow. *Journal of Hydrology*, **2018**, 560, 150-159	6	21
152	Shock transmission in the International Food Trade Network. *PLoS ONE*, **2018**, 13, e0200639	3.7	21
151	Hydrodynamic-driven stability analysis of morphological patterns on stalactites and implications for cave paleoflow reconstructions. *Physical Review Letters*, **2012**, 108, 238501	7.4	21
150	Influence of weak trends on exceedance probability. *Stochastic Hydrology & Hydraulics*, **1998**, 12, 1-14		21
149	A phenomenological model to describe turbulent friction in permeable-wall flows. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	20
148	Numerical and experimental characterization of a novel modular passive micromixer. *Biomedical Microdevices*, **2012**, 14, 849-62	3.7	20
147	Sinc collocation-interpolation method for the simulation of nonlinear waves. *Computers and Mathematics With Applications*, **2003**, 46, 1443-1453	2.7	20
146	From time-series to complex networks: Application to the cerebrovascular flow patterns in atrial fibrillation. *Chaos*, **2017**, 27, 093107	3.3	19
145	Noise-driven cooperative dynamics between vegetation and topography in riparian zones. *Geophysical Research Letters*, **2015**, 42, 8021-8030	4.9	19

144	A stochastic process for the interannual snow storage and melting dynamics. *Journal of Geophysical Research*, **2007**, 112,		19
143	The influence of stochastic soil moisture dynamics on gaseous emissions of NO, N2O, and N2. *Hydrological Sciences Journal*, **2003**, 48, 781-798	3.5	19
142	Probabilistic modeling of nitrogen and carbon dynamics in water-limited ecosystems. *Ecological Modelling*, **2004**, 179, 205-219	3	19
141	On the Trajectory Method for the Reconstruction of Differential Equations from Time Series. *Nonlinear Dynamics*, **2000**, 23, 13-33	5	19
140	Compensatory Effect between Aortic Stiffening and Remodelling during Ageing. *PLoS ONE*, **2015**, 10, e0139211	3.7	19
139	Water disinfection by orifice-induced hydrodynamic cavitation. *Ultrasonics Sonochemistry*, **2020**, 60, 104840	7.9	19
138	Noise-induced phenomena in riparian vegetation dynamics. *Geophysical Research Letters*, **2007**, 34,	4.9	18
137	Stochastic dynamics of BOD in a stream with random inputs. *Advances in Water Resources*, **2004**, 27, 943-952	4.7	17
136	Rate control management of atrial fibrillation: may a mathematical model suggest an ideal heart rate?. *PLoS ONE*, **2015**, 10, e0119868	3.7	17
135	A review on turbulent and vortical flow analyses via complex networks. *Physica A: Statistical Mechanics and Its Applications*, **2021**, 563, 125476	3.3	17
134	Inequalities in the networks of virtual water flow. *Eos*, **2012**, 93, 309-310	1.5	16
133	Flume Experiments on Turbulent Flows Across Gaps of Permeable and Impermeable Boundaries. *Boundary-Layer Meteorology*, **2013**, 147, 21-39	3.4	16
132	Spatial pattern formation induced by Gaussian white noise. *Mathematical Biosciences*, **2011**, 229, 174-84	3.9	16
131	Probabilistic nonlinear prediction of river flows. *Water Resources Research*, **2005**, 41,	5.4	16
130	On the use of neural networks for dendroclimatic reconstructions. *Geophysical Research Letters*, **2000**, 27, 791-794	4.9	16
129	Fluid dynamics of heart valves during atrial fibrillation: a lumped parameter-based approach. *Computer Methods in Biomechanics and Biomedical Engineering*, **2016**, 19, 1060-8	2.1	15
128	Effect of water table fluctuations on phreatophytic root distribution. *Journal of Theoretical Biology*, **2014**, 360, 102-108	2.3	15
127	Mean root depth estimation at landslide slopes. *Ecological Engineering*, **2014**, 69, 118-125	3.9	15

126	Can microbial fuel cells be an effective mitigation strategy for methane emissions from paddy fields?. *Ecological Engineering*, **2013**, 60, 167-171	3.9	15
125	Inter-species competition-facilitation in stochastic riparian vegetation dynamics. *Journal of Theoretical Biology*, **2013**, 318, 13-21	2.3	15
124	Modal versus nonmodal linear stability analysis of river dunes. *Physics of Fluids*, **2011**, 23, 104102	4.4	15
123	Detecting nonlinearity in time series driven by non-Gaussian noise: the case of river flows. *Nonlinear Processes in Geophysics*, **2004**, 11, 463-470	2.9	15
122	On the convective-absolute nature of river bedform instabilities. *Physics of Fluids*, **2014**, 26, 124104	4.4	14
121	Long-term morphological river response to hydrological changes. *Advances in Water Resources*, **2011**, 34, 1643-1655	4.7	14
120	A Computational Study on the Relation between Resting Heart Rate and Atrial Fibrillation Hemodynamics under Exercise. *PLoS ONE*, **2017**, 12, e0169967	3.7	14
119	Alteration of cerebrovascular haemodynamic patterns due to atrial fibrillation: an investigation. *Journal of the Royal Society Interface*, **2017**, 14,	4.1	13
118	General metrics for segmenting infrastructure networks. *Journal of Hydroinformatics*, **2015**, 17, 505-517	2.6	13
117	Nonnormality and transient behavior of the de Saint-Venant-Exner equations. *Water Resources Research*, **2009**, 45,	5.4	13
116	Green Function of the Linearized de Saint-Venant Equations. *Journal of Engineering Mechanics - ASCE*, **2006**, 132, 125-132	2.4	13
115	A Spatial Model for Soil Atmosphere Interaction: Model Construction and Linear Stability Analysis. *Journal of Hydrometeorology*, **2000**, 1, 61-74	3.7	13
114	Cardiovascular deconditioning during long-term spaceflight through multiscale modeling. *Npj Microgravity*, **2020**, 6, 27	5.3	13
113	The past and future of food stocks. *Environmental Research Letters*, **2016**, 11, 035010	6.2	13
112	Lagrangian network analysis of turbulent mixing. *Journal of Fluid Mechanics*, **2019**, 865, 546-562	3.7	13
111	Propagation of toxic substances in the urban atmosphere: A complex network perspective. *Atmospheric Environment*, **2019**, 198, 291-301	5.3	13
110	Impaired coronary blood flow at higher heart rates during atrial fibrillation: Investigation via multiscale modelling. *Computer Methods and Programs in Biomedicine*, **2019**, 175, 95-102	6.9	12
109	Stochastic resonance and coherence resonance in groundwater-dependent plant ecosystems. *Journal of Theoretical Biology*, **2012**, 293, 65-73	2.3	12

108	Role of water flow in modeling methane emissions from flooded paddy soils. *Advances in Water Resources*, **2013**, 52, 261-274	4.7	12
107	Bed evolution measurement with flowing water in morphodynamics experiments. *Earth Surface Processes and Landforms*, **2012**, 37, 818-827	3.7	12
106	Transient growth induces unexpected deterministic spatial patterns in the Turing process. *Europhysics Letters*, **2011**, 95, 18003	1.6	12
105	A shallow-water theory of river bedforms in supercritical conditions. *Physics of Fluids*, **2012**, 24, 094104	4.4	12
104	Longitudinal dispersion in vegetated rivers with stochastic flows. *Advances in Water Resources*, **2010**, 33, 562-571	4.7	12
103	Convective nature of the planimetric instability in meandering river dynamics. *Physical Review E*, **2006**, 73, 026311	2.4	12
102	Computational fluid dynamics modelling of left valvular heart diseases during atrial fibrillation. *PeerJ*, **2016**, 4, e2240	3.1	12
101	A spectral approach for the stability analysis of turbulent open-channel flows over granular beds. *Theoretical and Computational Fluid Dynamics*, **2012**, 26, 51-80	2.3	11
100	Supraglacial channel inception: Modeling and processes. *Water Resources Research*, **2015**, 51, 7044-7063	5.4	11
99	Spatio-temporal stochastic resonance induces patterns in wetland vegetation dynamics. *Ecological Complexity*, **2012**, 10, 93-101	2.6	11
98	Transport of reactive chemicals in sediment-laden streams. *Advances in Water Resources*, **2003**, 26, 815-824	4.7	11
97	Influence of suspended sediment on the transport processes of nonlinear reactive substances in turbulent streams. *Journal of Fluid Mechanics*, **2002**, 472, 307-331	3.7	11
96	Multiscale mathematical modeling vs. the generalized transfer function approach for aortic pressure estimation: a comparison with invasive data. *Hypertension Research*, **2019**, 42, 690-698	4.7	11
95	Thin-film-induced morphological instabilities over calcite surfaces. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2015**, 471, 20150031	2.4	10
94	Changes in bacteria composition and efficiency of constructed wetlands under sustained overloads: A modeling experiment. *Science of the Total Environment*, **2018**, 612, 1480-1487	10.2	10
93	Noise-induced transitions in state-dependent dichotomous processes. *Physical Review E*, **2008**, 78, 031137	2.4	10
92	Impact of seasonal forcing on reactive ecological systems. *Journal of Theoretical Biology*, **2017**, 419, 23-35	2.3	9
91	The environmental cost of a reference withdrawal from surface waters: Definition and geography. *Advances in Water Resources*, **2017**, 110, 228-237	4.7	9

90	On the scaling of large-scale structures in smooth-bed turbulent open-channel flows. *Journal of Fluid Mechanics*, **2020**, 889,	3.7	9
89	Spatial characterization of turbulent channel flow via complex networks. *Physical Review E*, **2018**, 98, 013107	2.4	9
88	Community Detection as a Tool for District Metered Areas Identification. *Procedia Engineering*, **2014**, 70, 1518-1523		9
87	Plant water uptake strategies to cope with stochastic rainfall. *Advances in Water Resources*, **2013**, 53, 118-130	4.7	9
86	Nonlinear convection-dispersion models with a localized pollutant source, IIA class of inverse problems. *Mathematical and Computer Modelling*, **2005**, 42, 601-612		9
85	Experimental investigation of vertical turbulent transport of a passive scalar in a boundary layer: Statistics and visibility graph analysis. *Physical Review Fluids*, **2019**, 4,	2.8	9
84	The impacts of increasing current velocity on the drift of Simulium monticola (Diptera: Simuliidae): a laboratory approach. *Italian Journal of Zoology*, **2013**, 80, 443-448		8
83	Crossing properties for geophysical systems forced by Poisson noise. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	8
82	Central Pressure Appraisal: Clinical Validation of a Subject-Specific Mathematical Model. *PLoS ONE*, **2016**, 11, e0151523	3.7	8
81	Effects of atrial fibrillation on the arterial fluid dynamics: a modelling perspective. *Meccanica*, **2018**, 53, 3251-3267	2.1	8
80	HYDROLOGICAL AND GEOMORPHOLOGICAL SIGNIFICANCE OF RIPARIAN VEGETATION IN DRYLANDS **2006**, 161-179		8
79	Embedding the intrinsic relevance of vertices in network analysis: the case of centrality metrics. *Scientific Reports*, **2020**, 10, 3297	4.9	7
78	Charting out the future agricultural trade and its impact on water resources. *Science of the Total Environment*, **2020**, 714, 136626	10.2	7
77	Street canyon ventilation: Combined effect of cross-section geometry and wall heating. *Quarterly Journal of the Royal Meteorological Society*, **2020**, 146, 2347-2367	6.4	7
76	Identification of source terms in nonlinear convection diffusion phenomena by sinc collocation-interpolation methods. *Mathematical and Computer Modelling*, **1997**, 26, 69-79		7
75	Test to determine the Markov order of a time series. *Physical Review E*, **2007**, 75, 011126	2.4	7
74	Influence of heterogeneity on the flow in unconfined aquifers. *Journal of Hydrology*, **2000**, 228, 150-159	6	7
73	Coronary fluid mechanics in an ageing cardiovascular system. *Meccanica*, **2017**, 52, 503-514	2.1	6

72	In silico analysis of the anti-hypertensive drugs impact on myocardial oxygen balance. *Biomechanics and Modeling in Mechanobiology*, **2017**, 16, 1035-1047	3.8	6
71	Non-invasive aortic systolic pressure and pulse wave velocity estimation in a primary care setting: An in silico study. *Medical Engineering and Physics*, **2017**, 42, 91-98	2.4	6
70	The globalization of riverine environmental resources through the food trade. *Environmental Research Letters*, **2019**, 14, 024020	6.2	6
69	Spatial Distribution of the International Food Prices: Unexpected Heterogeneity and Randomness. *Ecological Economics*, **2019**, 159, 122-132	5.6	6
68	Groundwater impact on methane emissions from flooded paddy fields. *Advances in Water Resources* , **2015**, 83, 340-350	4.7	6
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