

# Alberto Montanari

## 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.

131  
papers

9,080  
citations

46  
h-index

94  
g-index

180  
ext. papers

10,387  
ext. citations

5.2  
avg, IF

6.45  
L-index

#	Paper	IF	Citations
131	Bluecat: A Local Uncertainty Estimator for Deterministic Simulations and Predictions. <i>Water Resources Research</i> , <b>2022</b> , 58,	5.4	6
130	Climate Extrapolations in Hydrology: The Expanded Bluecat Methodology. <i>Hydrology</i> , <b>2022</b> , 9, 86	2.8	0
129	Reducing the Flood Risk of Art Cities: The Case of Florence. <i>Journal of Hydraulic Engineering</i> , <b>2020</b> , 146, 02520001	1.8	3
128	Quantification of predictive uncertainty in hydrological modelling by harnessing the wisdom of the crowd: A large-sample experiment at monthly timescale. <i>Advances in Water Resources</i> , <b>2020</b> , 136, 103470	4.7	15
127	Quantification of predictive uncertainty in hydrological modelling by harnessing the wisdom of the crowd: Methodology development and investigation using toy models. <i>Advances in Water Resources</i> , <b>2020</b> , 136, 103471	4.7	8
126	Changing climate both increases and decreases European river floods. <i>Nature</i> , <b>2019</b> , 573, 108-111	50.4	344
125	Global-scale human pressure evolution imprints on sustainability of river systems. <i>Hydrology and Earth System Sciences</i> , <b>2019</b> , 23, 3933-3944	5.5	8
124	A large sample analysis of European rivers on seasonal river flow correlation and its physical drivers. <i>Hydrology and Earth System Sciences</i> , <b>2019</b> , 23, 73-91	5.5	13
123	Twenty-three unsolved problems in hydrology (UPH) in a community perspective. <i>Hydrological Sciences Journal</i> , <b>2019</b> , 64, 1141-1158	3.5	259
122	Global and Regional Increase of Precipitation Extremes Under Global Warming. <i>Water Resources Research</i> , <b>2019</b> , 55, 4901	5.4	160
121	Evaluating the Effects of Urbanization Evolution on Air Temperature Trends Using Nightlight Satellite Data. <i>Atmosphere</i> , <b>2019</b> , 10, 117	2.7	15
120	Probabilistic Hydrological Post-Processing at Scale: Why and How to Apply Machine-Learning Quantile Regression Algorithms. <i>Water (Switzerland)</i> , <b>2019</b> , 11, 2126	3	36
119	Detection of trends in magnitude and frequency of flood peaks across Europe. <i>Hydrological Sciences Journal</i> , <b>2018</b> , 63, 493-512	3.5	40
118	Hydro-power production and fish habitat suitability: Assessing impact and effectiveness of ecological flows at regional scale. <i>Advances in Water Resources</i> , <b>2018</b> , 116, 29-39	4.7	15
117	Globally Universal Fractal Pattern of Human Settlements in River Networks. <i>Earth's Future</i> , <b>2018</b> , 6, 1134-1145	7.1	23
116	Characterizing and Modeling Seasonality in Extreme Rainfall. <i>Water Resources Research</i> , <b>2018</b> , 54, 6242-6258	5.4	14
115	A geostatistical data-assimilation technique for enhancing macro-scale rainfall runoff simulations. <i>Hydrology and Earth System Sciences</i> , <b>2018</b> , 22, 4633-4648	5.5	5

114	Topography- and nightlight-based national flood risk assessment in Canada. <i>Hydrology and Earth System Sciences</i> , <b>2017</b> , 21, 2219-2232	5.5	16
113	Changing climate shifts timing of European floods. <i>Science</i> , <b>2017</b> , 357, 588-590	33.3	402
112	Perennial springs provide information to predict low flows in mountain basins. <i>Hydrological Sciences Journal</i> , <b>2017</b> , 62, 2469-2481	3.5	15
111	Real-time updating of the flood frequency distribution through data assimilation. <i>Hydrology and Earth System Sciences</i> , <b>2017</b> , 21, 3687-3700	5.5	4
110	Joint Editorial: Fostering Innovation and Improving Impact Assessment for Journal Publications in Hydrology. <i>Vadose Zone Journal</i> , <b>2016</b> , 15, vzj2016.01.0002ed	2.7	1
109	Uncertainty in hydrological signatures for gauged and ungauged catchments. <i>Water Resources Research</i> , <b>2016</b> , 52, 1847-1865	5.4	82
108	Joint editorial: Fostering innovation and improving impact assessment for journal publications in hydrology. <i>Hydrological Sciences Journal</i> , <b>2016</b> , 1-4	3.5	8
107	The scientific legacy of Harold Edwin Hurst (1880-1978). <i>Hydrological Sciences Journal</i> , <b>2016</b> , 61, 1571-1590	5.5	43
106	Joint Editorial: Fostering innovation and improving impact assessment for journal publications in hydrology. <i>Hydrology and Earth System Sciences</i> , <b>2016</b> , 20, 1081-1084	5.5	2
105	Panta Rhei 2013-2015: global perspectives on hydrology, society and change. <i>Hydrological Sciences Journal</i> , <b>2016</b> , 1-18	3.5	44
104	Adaptation of water resources systems to changing society and environment: a statement by the International Association of Hydrological Sciences. <i>Hydrological Sciences Journal</i> , <b>2016</b> , 61, 2803-2817	3.5	40
103	Negligent killing of scientific concepts: the stationarity case. <i>Hydrological Sciences Journal</i> , <b>2015</b> , 60, 1174-1183	3.5	123
102	Estimating the Uncertainty of Hydrological Predictions through Data-Driven Resampling Techniques. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2015</b> , 20,	1.8	43
101	Human-impacted waters: New perspectives from global high-resolution monitoring. <i>Water Resources Research</i> , <b>2015</b> , 51, 7064-7079	5.4	37
100	A reflection on the first 50 years of Water Resources Research. <i>Water Resources Research</i> , <b>2015</b> , 51, 7829-7837	5.4	32
99	Hydraulic modeling of the tributary and the outlet of a Martian paleolake located in the Memnonia quadrangle. <i>Journal of Geophysical Research E: Planets</i> , <b>2015</b> , 120, 1597-1619	4.1	5
98	Virtual laboratories: new opportunities for collaborative water science. <i>Hydrology and Earth System Sciences</i> , <b>2015</b> , 19, 2101-2117	5.5	49
97	Climate and hydrological variability: the catchment filtering role. <i>Hydrology and Earth System Sciences</i> , <b>2015</b> , 19, 379-387	5.5	19

96	Fifty years of Water Resources Research: Legacy and perspectives for the science of hydrology. <i>Water Resources Research</i> , <b>2015</b> , 51, 6797-6803	5-4	20
95	On the future of journal publications in hydrology. <i>Water Resources Research</i> , <b>2014</b> , 50, 2795-2797	5-4	5
94	Toward a theoretical framework for integrated modeling of hydrological change. <i>Wiley Interdisciplinary Reviews: Water</i> , <b>2014</b> , 1, 427-438	5-7	11
93	On the future of journal publications in hydrology <b>2014</b> , 45, 515-518		7
92	Hydrologic controls on basin-scale distribution of benthic invertebrates. <i>Water Resources Research</i> , <b>2014</b> , 50, 2903-2920	5-4	38
91	Debates—The future of hydrological sciences: A (common) path forward? Introduction. <i>Water Resources Research</i> , <b>2014</b> , 50, 5334-5334	5-4	2
90	Reply to comment by Grey Nearing on “A blueprint for process-based modeling of uncertain hydrological systems” <i>Water Resources Research</i> , <b>2014</b> , 50, 6264-6268	5-4	6
89	Understanding flood regime changes in Europe: a state-of-the-art assessment. <i>Hydrology and Earth System Sciences</i> , <b>2014</b> , 18, 2735-2772	5-5	334
88	Large-sample hydrology: a need to balance depth with breadth. <i>Hydrology and Earth System Sciences</i> , <b>2014</b> , 18, 463-477	5-5	152
87	Joint Editorial “On the future of journal publications in hydrology”. <i>Hydrology and Earth System Sciences</i> , <b>2014</b> , 18, 2433-2435	5-5	2
86	Modeling and mitigating natural hazards: Stationarity is immortal!. <i>Water Resources Research</i> , <b>2014</b> , 50, 9748-9756	5-4	161
85	Satellite nighttime lights reveal increasing human exposure to floods worldwide. <i>Geophysical Research Letters</i> , <b>2014</b> , 41, 7184-7190	4-9	76
84	Joint Editorial “On the future of journal publications in hydrology. <i>Hydrological Sciences Journal</i> , <b>2014</b> , 59, 955-958	3-5	5
83	Emerging Approaches to Hydrological Risk Management in a Changing World <b>2013</b> , 3-10		27
82	Data errors and hydrological modelling: The role of model structure to propagate observation uncertainty. <i>Advances in Water Resources</i> , <b>2013</b> , 51, 498-504	4-7	40
81	A decade of Predictions in Ungauged Basins (PUB)—review. <i>Hydrological Sciences Journal</i> , <b>2013</b> , 58, 1198-1255	3-5	627
80	“Banta Rhei—Everything Flows—Change in hydrology and society—the IAHS Scientific Decade 2013–2022. <i>Hydrological Sciences Journal</i> , <b>2013</b> , 58, 1256-1275	3-5	452
79	Developing predictive insight into changing water systems: use-inspired hydrologic science for the Anthropocene. <i>Hydrology and Earth System Sciences</i> , <b>2013</b> , 17, 5013-5039	5-5	103

78	Effect of observation errors on the uncertainty of design floods. <i>Physics and Chemistry of the Earth</i> , <b>2012</b> , 42-44, 85-90	3	29
77	Calibration of a rainfall-runoff model at regional scale by optimising river discharge statistics: Performance analysis for the average/low flow regime. <i>Physics and Chemistry of the Earth</i> , <b>2012</b> , 42-44, 77-84	3	11
76	Validation of hydrological models: Conceptual basis, methodological approaches and a proposal for a code of practice. <i>Physics and Chemistry of the Earth</i> , <b>2012</b> , 42-44, 70-76	3	82
75	Efficiency of Storm Detention Tanks for Urban Drainage Systems under Climate Variability. <i>Journal of Water Resources Planning and Management - ASCE</i> , <b>2012</b> , 138, 36-46	2.8	34
74	A blueprint for process-based modeling of uncertain hydrological systems. <i>Water Resources Research</i> , <b>2012</b> , 48,	5.4	129
73	Estimating the flood frequency distribution at seasonal and annual time scales. <i>Hydrology and Earth System Sciences</i> , <b>2012</b> , 16, 4651-4660	5.5	25
72	An ecohydrological model of malaria outbreaks. <i>Hydrology and Earth System Sciences</i> , <b>2012</b> , 16, 2759-2769	5.5	18
71	Hydrology of the Po River: looking for changing patterns in river discharge. <i>Hydrology and Earth System Sciences</i> , <b>2012</b> , 16, 3739-3747	5.5	82
70	Convergence of approaches toward reducing uncertainty in predictions in ungauged basins. <i>Water Resources Research</i> , <b>2011</b> , 47,	5.4	118
69	Propagation of uncertainties in coupled hydro-meteorological forecasting systems: A stochastic approach for the assessment of the total predictive uncertainty. <i>Atmospheric Research</i> , <b>2011</b> , 100, 263-274	5.4	18
68	Can a simple stochastic model generate rich patterns of rainfall events?. <i>Journal of Hydrology</i> , <b>2011</b> , 411, 279-289	6	27
67	Relation Between the North-Atlantic Oscillation and Hydroclimatic Conditions in Mediterranean Areas. <i>Water Resources Management</i> , <b>2011</b> , 25, 1269-1279	3.7	63
66	Uncertainty of Hydrological Predictions <b>2011</b> , 459-478		35
65	Smooth regional estimation of low-flow indices: physiographical space based interpolation and top-kriging. <i>Hydrology and Earth System Sciences</i> , <b>2011</b> , 15, 715-727	5.5	46
64	Stochastic rainfall analysis for storm tank performance evaluation. <i>Hydrology and Earth System Sciences</i> , <b>2010</b> , 14, 1221-1232	5.5	25
63	Flood fatalities in Africa: From diagnosis to mitigation. <i>Geophysical Research Letters</i> , <b>2010</b> , 37, n/a-n/a	4.9	225
62	Calibration of rainfall-runoff models in ungauged basins: A regional maximum likelihood approach. <i>Advances in Water Resources</i> , <b>2010</b> , 33, 1235-1242	4.7	55
61	A look at the links between drainage density and flood statistics. <i>Hydrology and Earth System Sciences</i> , <b>2009</b> , 13, 1019-1029	5.5	97

60	Uncertainty in river discharge observations: a quantitative analysis. <i>Hydrology and Earth System Sciences</i> , <b>2009</b> , 13, 913-921	5.5	409
59	Prediction of low-flow indices in ungauged basins through physiographical space-based interpolation. <i>Journal of Hydrology</i> , <b>2009</b> , 378, 272-280	6	53
58	Climate change impacts—throwing the dice?. <i>Hydrological Processes</i> , <b>2009</b> , 24, n/a-n/a	3.3	121
57	Probability-weighted hazard maps for comparing different flood risk management strategies: a case study. <i>Natural Hazards</i> , <b>2009</b> , 50, 479-496	3	85
56	Climate, hydrology and freshwater: towards an interactive incorporation of hydrological experience into climate research. <i>Hydrological Sciences Journal</i> , <b>2009</b> , 54, 394-405	3.5	72
55	Design flood estimation using model selection criteria. <i>Physics and Chemistry of the Earth</i> , <b>2009</b> , 34, 606-611	6	52
54	Model selection techniques for the frequency analysis of hydrological extremes. <i>Water Resources Research</i> , <b>2009</b> , 45,	5.4	123
53	On the calibration of hydrological models in ungauged basins: A framework for integrating hard and soft hydrological information. <i>Water Resources Research</i> , <b>2009</b> , 45,	5.4	139
52	Introduction to special section on Uncertainty Assessment in Surface and Subsurface Hydrology: An overview of issues and challenges. <i>Water Resources Research</i> , <b>2009</b> , 45,	5.4	65
51	Application of a barrier island translation model to the millennial-scale evolution of Sand Key, Florida. <i>Continental Shelf Research</i> , <b>2008</b> , 28, 1116-1126	2.4	42
50	Estimating the uncertainty of hydrological forecasts: A statistical approach. <i>Water Resources Research</i> , <b>2008</b> , 44,	5.4	94
49	Inferring the flood frequency distribution for an ungauged basin using a spatially distributed rainfall-runoff model. <i>Hydrology and Earth System Sciences</i> , <b>2008</b> , 12, 1141-1152	5.5	56
48	Estimating the suspended sediment yield in a river network by means of geomorphic parameters and regression relationships. <i>Hydrology and Earth System Sciences</i> , <b>2008</b> , 12, 177-191	5.5	27
47	Calibration of hydrological models in the spectral domain: An opportunity for scarcely gauged basins?. <i>Water Resources Research</i> , <b>2007</b> , 43,	5.4	73
46	Statistical analysis of hydroclimatic time series: Uncertainty and insights. <i>Water Resources Research</i> , <b>2007</b> , 43,	5.4	210
45	What do we mean by “uncertainty”? The need for a consistent wording about uncertainty assessment in hydrology. <i>Hydrological Processes</i> , <b>2007</b> , 21, 841-845	3.3	168
44	AFFDEF: A spatially distributed grid based rainfall-runoff model for continuous time simulations of river discharge. <i>Environmental Modelling and Software</i> , <b>2007</b> , 22, 823-836	5.2	33
43	A probabilistic approach to the analysis of contraction scour. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , <b>2006</b> , 44, 654-662	1.9	6

42	A comparison and uncertainty assessment of system analysis techniques for short-term quantitative precipitation nowcasting based on radar images. <i>Journal of Geophysical Research</i> , <b>2006</b> , 111,		6
41	Reliability of different depth-duration-frequency equations for estimating short-duration design storms. <i>Water Resources Research</i> , <b>2006</b> , 42,	5.4	24
40	Stochastic Flow Analysis for Predicting River Scour of Cohesive Soils. <i>Journal of Hydraulic Engineering</i> , <b>2006</b> , 132, 493-500	1.8	30
39	Assessing the effect on flood frequency of land use change via hydrological simulation (with uncertainty). <i>Journal of Hydrology</i> , <b>2006</b> , 324, 141-153	6	202
38	Investigation of dominant hydrological processes in a tropical catchment in a monsoonal climate via the downward approach. <i>Hydrology and Earth System Sciences</i> , <b>2006</b> , 10, 769-782	5.5	22
37	Knickpoints and hillslope failures: Interactions in a steady-state experimental landscape <b>2006</b> ,		7
36	Deseasonalisation of hydrological time series through the normal quantile transform. <i>Journal of Hydrology</i> , <b>2005</b> , 313, 274-282	6	23
35	Large sample behaviors of the generalized likelihood uncertainty estimation (GLUE) in assessing the uncertainty of rainfall-runoff simulations. <i>Water Resources Research</i> , <b>2005</b> , 41,	5.4	168
34	Regional flow-duration curves: reliability for ungauged basins. <i>Advances in Water Resources</i> , <b>2004</b> , 27, 953-965	4.7	177
33	A stochastic approach for assessing the uncertainty of rainfall-runoff simulations. <i>Water Resources Research</i> , <b>2004</b> , 40,	5.4	192
32	Analysis of the effects of different scenarios of historical data availability on the calibration of a spatially-distributed hydrological model. <i>Journal of Hydrology</i> , <b>2004</b> , 291, 232-253	6	99
31	Assessing the reliability of regional depth-duration-frequency equations for gaged and ungaged sites. <i>Water Resources Research</i> , <b>2003</b> , 39,	5.4	46
30	Sensitivity of the peak flows to the spatial variability of the soil infiltration capacity for different climatic scenarios. <i>Physics and Chemistry of the Earth</i> , <b>2003</b> , 28, 247-254	3	7
29	Assessing the effects of land-use changes on annual average gross erosion. <i>Hydrology and Earth System Sciences</i> , <b>2002</b> , 6, 255-265	5.5	27
28	Neural networks and non-parametric methods for improving real-time flood forecasting through conceptual hydrological models. <i>Hydrology and Earth System Sciences</i> , <b>2002</b> , 6, 627-639	5.5	76
27	At-site and regional assessment of the possible presence of non-stationarity in extreme rainfall in northern Italy. <i>Physics and Chemistry of the Earth</i> , <b>2001</b> , 26, 705-710		4
26	The effects of the spatial variability of soil infiltration capacity in distributed flood modelling. <i>Hydrological Processes</i> , <b>2000</b> , 14, 2779-2794	3.3	24
25	Comparison of short-term rainfall prediction models for real-time flood forecasting. <i>Journal of Hydrology</i> , <b>2000</b> , 239, 132-147	6	327



24	A seasonal fractional ARIMA Model applied to the Nile River monthly flows at Aswan. <i>Water Resources Research</i> , <b>2000</b> , 36, 1249-1259	5.4	120
23	Estimating long-range dependence in the presence of periodicity: An empirical study. <i>Mathematical and Computer Modelling</i> , <b>1999</b> , 29, 217-228		108
22	A seasonal long-memory stochastic model for the simulation of daily river flows. <i>Physics and Chemistry of the Earth</i> , <b>1999</b> , 24, 319-324		5
21	Real-time flood forecasting via combined use of conceptual and stochastic models. <i>Physics and Chemistry of the Earth</i> , <b>1999</b> , 24, 793-798		30
20	The effects of non-stationarity on the evaluation of critical design storms. <i>Water Science and Technology</i> , <b>1998</b> , 37, 187-193	2.2	9
19	Fractionally differenced ARIMA models applied to hydrologic time series: Identification, estimation, and simulation. <i>Water Resources Research</i> , <b>1997</b> , 33, 1035-1044	5.4	191
18	Forecasting of storm rainfall by combined use of radar, rain gages and linear models. <i>Atmospheric Research</i> , <b>1996</b> , 42, 199-216	5.4	18
17	Some long-run properties of rainfall records in Italy. <i>Journal of Geophysical Research</i> , <b>1996</b> , 101, 29431-29438		39
16	Modelling hydrological data with and without long memory. <i>Meccanica</i> , <b>1996</b> , 31, 87-101	2.1	8
15	Saving a World Treasure: Protecting Florence from Flooding. <i>Proceedings E Report</i> ,		5
14	Understanding flood regime changes in Europe: a state of the art assessment		11
13	Developing predictive insight into changing water systems: use-inspired hydrologic science for the Anthropocene		
12	Large-sample hydrology: a need to balance depth with breadth		9
11	Climate and hydrological variability: the catchment filtering role		2
10	Virtual laboratories: new opportunities for collaborative water science		3
9	Inferring the flood frequency distribution for an ungauged basin using a spatially distributed rainfall-runoff model		4
8	A look at the links between drainage density and flood statistics		7
7	Uncertainty in river discharge observations: a quantitative analysis		22



6	Geostatistical regionalization of low-flow indices: PSBI and Top-Kriging	2
5	A European Flood Database: facilitating comprehensive flood research beyond administrative boundaries. <i>Proceedings of the International Association of Hydrological Sciences</i> ,370, 89-95	22
4	Long term prediction of flood occurrence. <i>Proceedings of the International Association of Hydrological Sciences</i> ,373, 189-192	1
3	Panta Rhei: an evolving scientific decade with a focus on water systems. <i>Proceedings of the International Association of Hydrological Sciences</i> ,364, 279-284	2
2	Human signatures derived from nighttime lights along the Eastern Alpine river network in Austria and Italy. <i>Proceedings of the International Association of Hydrological Sciences</i> ,373, 131-136	
1	Satellite Remote Sensing of Hydrological Change57-71	1