

Luis Garrote

List of Publications by Citations

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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.

122
papers

3,470
citations

29
h-index

56
g-index

144
ext. papers

4,193
ext. citations

4.1
avg, IF

6.11
L-index

#	Paper	IF	Citations
122	Challenges to Manage the Risk of Water Scarcity and Climate Change in the Mediterranean. <i>Water Resources Management</i> , 2007 , 21, 775-788	3.7	308
121	Physical and economic consequences of climate change in Europe. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 2678-83	11.5	253
120	Adaptation strategies for agricultural water management under climate change in Europe. <i>Agricultural Water Management</i> , 2015 , 155, 113-124	5.9	247
119	Influence of hydrologically based environmental flow methods on flow alteration and energy production in a run-of-river hydropower plant. <i>Journal of Cleaner Production</i> , 2019 , 232, 1028-1042	10.3	183
118	Flow regime aspects in determining environmental flows and maximising energy production at run-of-river hydropower plants. <i>Applied Energy</i> , 2019 , 256, 113980	10.7	147
117	Water-energy-ecosystem nexus: Balancing competing interests at a run-of-river hydropower plant coupling a hydrologic-cohydraulic approach. <i>Energy Conversion and Management</i> , 2020 , 223, 113267	10.6	123
116	Ecological impacts of run-of-river hydropower plants—Current status and future prospects on the brink of energy transition. <i>Renewable and Sustainable Energy Reviews</i> , 2021 , 142, 110833	16.2	118
115	A distributed model for real-time flood forecasting using digital elevation models. <i>Journal of Hydrology</i> , 1995 , 167, 279-306	6	114
114	A bivariate return period based on copulas for hydrologic dam design: accounting for reservoir routing in risk estimation. <i>Hydrology and Earth System Sciences</i> , 2013 , 17, 3023-3038	5.5	108
113	From climate change impacts to the development of adaptation strategies: Challenges for agriculture in Europe. <i>Climatic Change</i> , 2012 , 112, 143-168	4.5	99
112	A regional comparison of the effects of climate change on agricultural crops in Europe. <i>Climatic Change</i> , 2012 , 112, 29-46	4.5	86
111	Exploring drought vulnerability in Africa: an indicator based analysis to be used in early warning systems. <i>Hydrology and Earth System Sciences</i> , 2014 , 18, 1591-1604	5.5	81
110	Detection and attribution of trends in magnitude, frequency and timing of floods in Spain. <i>Journal of Hydrology</i> , 2014 , 517, 1072-1088	6	72
109	Re-thinking water policy priorities in the Mediterranean region in view of climate change. <i>Environmental Science and Policy</i> , 2011 , 14, 744-757	6.2	71
108	Pressure Management in Water Distribution Systems: Current Status, Proposals, and Future Trends. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2016 , 142, 04015061	2.8	61
107	Quantitative Assessment of Climate Change Vulnerability of Irrigation Demands in Mediterranean Europe. <i>Water Resources Management</i> , 2015 , 29, 325-338	3.7	60
106	Design flood hydrographs from the relationship between flood peak and volume. <i>Hydrology and Earth System Sciences</i> , 2010 , 14, 2495-2505	5.5	60

105	A kinematic model of infiltration and runoff generation in layered and sloped soils. <i>Advances in Water Resources</i> , 1992 , 15, 311-324	4.7	51
104	Diagnosing Causes of Water Scarcity in Complex Water Resources Systems and Identifying Risk Management Actions. <i>Water Resources Management</i> , 2013 , 27, 1693-1705	3.7	50
103	A methodology to diagnose the effect of climate change and to identify adaptive strategies to reduce its impacts in conjunctive-use systems at basin scale. <i>Journal of Hydrology</i> , 2011 , 405, 110-122	6	50
102	Smoothed particle hydrodynamics model applied to hydraulic structures: a hydraulic jump test case. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2010 , 48, 142-158	1.9	50
101	Tradeoff between economic and environmental costs and benefits of hydropower production at run-of-river-diversion schemes under different environmental flows scenarios. <i>Journal of Hydrology</i> , 2019 , 572, 790-804	6	47
100	Managing Water Resources to Adapt to Climate Change: Facing Uncertainty and Scarcity in a Changing Context. <i>Water Resources Management</i> , 2017 , 31, 2951-2963	3.7	42
99	Hydrometeorological multi-model ensemble simulations of the 4 November 2011 flash flood event in Genoa, Italy, in the framework of the DRIHM project. <i>Natural Hazards and Earth System Sciences</i> , 2015 , 15, 537-555	3.9	36
98	Vineyards in transition: A global assessment of the adaptation needs of grape producing regions under climate change. <i>Science of the Total Environment</i> , 2019 , 657, 839-852	10.2	35
97	Linking Drought Indicators to Policy Actions in the Tagus Basin Drought Management Plan. <i>Water Resources Management</i> , 2007 , 21, 873-882	3.7	34
96	Improving QPF by blending techniques at the Meteorological Service of Catalonia. <i>Natural Hazards and Earth System Sciences</i> , 2010 , 10, 1443-1455	3.9	33
95	The economic value of drought information for water management under climate change: a case study in the Ebro basin. <i>Natural Hazards and Earth System Sciences</i> , 2011 , 11, 643-657	3.9	31
94	A probabilistic model to support reservoir operation decisions during flash floods. <i>Hydrological Sciences Journal</i> , 2007 , 52, 523-537	3.5	31
93	Characterisation of the Sensitivity of Water Resources Systems to Climate Change. <i>Water Resources Management</i> , 2013 , 27, 4237-4258	3.7	29
92	Using Lightning Data to Better Understand and Predict Flash Floods in the Mediterranean. <i>Surveys in Geophysics</i> , 2011 , 32, 733-751	7.6	29
91	An integrated software environment for real-time use of a distributed hydrologic model. <i>Journal of Hydrology</i> , 1995 , 167, 307-326	6	26
90	Optimization of Hedging Rules for Reservoir Operation During Droughts Based on Particle Swarm Optimization. <i>Water Resources Management</i> , 2016 , 30, 5759-5778	3.7	25
89	The FLASH Project: using lightning data to better understand and predict flash floods. <i>Environmental Science and Policy</i> , 2011 , 14, 898-911	6.2	24
88	Extreme flood abatement in large dams with fixed-crest spillways. <i>Journal of Hydrology</i> , 2012 , 466-467, 60-72	6	23

87	Extreme flood abatement in large dams with gate-controlled spillways. <i>Journal of Hydrology</i> , 2013 , 498, 113-123	6	22
86	Influence of initial reservoir level and gate failure in dam safety analysis. Stochastic approach. <i>Journal of Hydrology</i> , 2017 , 550, 669-684	6	21
85	Extension of observed flood series by combining a distributed hydro-meteorological model and a copula-based model. <i>Stochastic Environmental Research and Risk Assessment</i> , 2016 , 30, 1363-1378	3.5	21
84	Improving runoff estimates from regional climate models: a performance analysis in Spain. <i>Hydrology and Earth System Sciences</i> , 2012 , 16, 1709-1723	5.5	21
83	Strategies to reduce water stress in Euro-Mediterranean river basins. <i>Science of the Total Environment</i> , 2016 , 543, 997-1009	10.2	20
82	On the Barriers to Adaption to Less Water under Climate Change: Policy Choices in Mediterranean Countries. <i>Water Resources Management</i> , 2018 , 32, 4819-4832	3.7	20
81	Effect of radar rainfall time resolution on the predictive capability of a distributed hydrologic model. <i>Hydrology and Earth System Sciences</i> , 2011 , 15, 3809-3827	5.5	19
80	Drought risk management in Mediterranean river basins. <i>Integrated Environmental Assessment and Management</i> , 2009 , 5, 11-6	2.5	18
79	Impact of Hydrological Uncertainty on Water Management Decisions. <i>Water Resources Management</i> , 2016 , 30, 5535-5551	3.7	18
78	Probabilistic calibration of a distributed hydrological model for flood forecasting. <i>Hydrological Sciences Journal</i> , 2011 , 56, 1129-1149	3.5	17
77	Optimization of the Design of Water Distribution Systems for Variable Pumping Flow Rates. <i>Water (Switzerland)</i> , 2020 , 12, 359	3	16
76	Analysis of Current and Future SPEI Droughts in the La Plata Basin Based on Results from the Regional Eta Climate Model. <i>Water (Switzerland)</i> , 2017 , 9, 857	3	16
75	Pressure as a predictor of occurrence of pipe breaks in water distribution networks. <i>Urban Water Journal</i> , 2016 , 13, 676-686	2.3	16
74	Adaptation Effort and Performance of Water Management Strategies to Face Climate Change Impacts in Six Representative Basins of Southern Europe. <i>Water (Switzerland)</i> , 2019 , 11, 1078	3	15
73	Risk-based methodology for parameter calibration of a reservoir flood control model. <i>Natural Hazards and Earth System Sciences</i> , 2013 , 13, 965-981	3.9	15
72	Use of Pressure Management to Reduce the Probability of Pipe Breaks: A Bayesian Approach. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2015 , 141, 04015010	2.8	14
71	Definition of Risk Indicators for Reservoirs Management Optimization. <i>Water Resources Management</i> , 2012 , 26, 981-996	3.7	14
70	Climate change risks and adaptation: new indicators for Mediterranean viticulture. <i>Mitigation and Adaptation Strategies for Global Change</i> , 2020 , 25, 881-899	3.9	13

69	A Parametric Flood Control Method for Dams with Gate-Controlled Spillways. <i>Water (Switzerland)</i> , 2017 , 9, 237	3	12
68	Probabilistic-Multiobjective Comparison of User-Defined Operating Rules. Case Study: Hydropower Dam in Spain. <i>Water (Switzerland)</i> , 2015 , 7, 956-974	3	12
67	Setting Up an Hydro-Meteo Experiment in Minutes: The DRIHM e-Infrastructure for HM Research 2014 ,		12
66	How Safe is Hydrologic Infrastructure Design? Analysis of Factors Affecting Extreme Flood Estimation. <i>Journal of Hydrologic Engineering - ASCE</i> , 2014 , 19, 04014028	1.8	11
65	Exploring drought vulnerability in Africa: an indicator based analysis to inform early warning systems		11
64	Towards Adaptation to Climate Change: Water for Rice in the Coastal Wetlands of Doñana, Southern Spain. <i>Water Resources Management</i> , 2017 , 31, 629-653	3.7	10
63	DRIHM(2US): An e-Science Environment for Hydrometeorological Research on High-Impact Weather Events. <i>Bulletin of the American Meteorological Society</i> , 2017 , 98, 2149-2166	6.1	10
62	Adapting Water Allocation to Irrigation Demands to Constraints in Water Availability Imposed by Climate Change. <i>Water Resources Management</i> , 2015 , 29, 1413-1430	3.7	10
61	A Fuzzy Multicriteria Categorization of Water Scarcity in Complex Water Resources Systems. <i>Water Resources Management</i> , 2015 , 29, 521-539	3.7	10
60	Fully Stochastic Distributed Methodology for Multivariate Flood Frequency Analysis. <i>Water (Switzerland)</i> , 2016 , 8, 225	3	10
59	Looking beyond the average agricultural impacts in defining adaptation needs in Europe. <i>Regional Environmental Change</i> , 2014 , 14, 1983-1993	4.3	9
58	The DRIHM Project: A Flexible Approach to Integrate HPC, Grid and Cloud Resources for Hydro-Meteorological Research 2014 ,		9
57	Blue Water in Europe: Estimates of Current and Future Availability and Analysis of Uncertainty. <i>Water (Switzerland)</i> , 2019 , 11, 420	3	9
56	Hydrologic Models for Emergency Decision Support Using Bayesian Networks. <i>Lecture Notes in Computer Science</i> , 2005 , 88-99	0.9	8
55	Valuing drought information for irrigation farmers: potential development of a hydrological risk insurance in Spain. <i>Spanish Journal of Agricultural Research</i> , 2011 , 9, 1059	1.1	8
54	The Influence of the Annual Number of Storms on the Derivation of the Flood Frequency Curve through Event-Based Simulation. <i>Water (Switzerland)</i> , 2016 , 8, 335	3	8
53	Hydrologic Determinants of Climate Change Impacts on Regulated Water Resources Systems. <i>Water Resources Management</i> , 2015 , 29, 1933-1947	3.7	7
52	Learning Bayesian Networks from Deterministic RainfallRunoff Models and Monte Carlo Simulation. <i>Water Science and Technology Library</i> , 2009 , 375-388	0.3	7

51	Bivariate return period based on copulas for hydrologic dam design: comparison of theoretical and empirical approach		7
50	Application of the system of environmental economic accounting for water SEEAW to the Spanish part of the Duero basin: Lessons learned. <i>Science of the Total Environment</i> , 2016 , 563-564, 611-22	10.2	7
49	Hydrological Risk Analysis of Dams: The Influence of Initial Reservoir Level Conditions. <i>Water (Switzerland)</i> , 2019 , 11, 461	3	6
48	Object-Oriented Software for Distributed Rainfall-Runoff Models. <i>Journal of Computing in Civil Engineering</i> , 1997 , 11, 190-194	5	6
47	DROUGHT-INDUCED WATER SCARCITY IN WATER RESOURCES SYSTEMS 2006 , 301-311		6
46	Do users benefit from additional information in support of operational drought management decisions in the Ebro basin?. <i>Hydrology and Earth System Sciences</i> , 2018 , 22, 5901-5917	5.5	6
45	Local and Collective Actions for Adaptation to Use Less Water for Agriculture in the Mediterranean Region 2018 , 73-84		6
44	Comparison between 2D Shallow-Water Simulations and Energy-Momentum Computations for Transcritical Flow Past Channel Contractions. <i>Water (Switzerland)</i> , 2019 , 11, 1476	3	5
43	A multicriteria fuzzy pattern recognition approach for assessing the vulnerability to drought: Mediterranean region. <i>Evolving Systems</i> , 2021 , 12, 109-122	2.1	5
42	Dataset of Georeferenced Dams in South America (DDSA). <i>Earth System Science Data</i> , 2021 , 13, 213-229	10.5	5
41	Adapting viticulture to climate change in the Mediterranean region: Evaluations accounting for spatial differences in the producers-climate interactions. <i>BIO Web of Conferences</i> , 2019 , 12, 01001	0.4	4
40	Pump Efficiency Analysis for Proper Energy Assessment in Optimization of Water Supply Systems. <i>Water (Switzerland)</i> , 2020 , 12, 132	3	4
39	Assessing maximum potential water withdrawal for food production under climate change - an application in Spain. <i>Journal of Water and Climate Change</i> , 2014 , 5, 633-651	2.3	4
38	Effect of radar rainfall time resolution on the predictive capability of a distributed hydrologic model 2010 ,		4
37	Influencia del nivel inicial en la definición de resguardos estacionales en presas. <i>Ingeniería Del Agua</i> , 2018 , 22, 225	0.7	4
36	Country-level assessment of future risk of water scarcity in Europe. <i>Proceedings of the International Association of Hydrological Sciences</i> , 379 , 455-462		4
35	PROBABILISTIC FORECASTS USING BAYESIAN NETWORKS CALIBRATED WITH DETERMINISTIC RAINFALL-RUNOFF MODELS 2006 , 173-183		4
34	Modelling uncertainty of flood quantile estimations at ungauged sites by Bayesian networks. <i>Journal of Hydroinformatics</i> , 2014 , 16, 822-838	2.6	3

33	Improving probabilistic flood forecasting through a data assimilation scheme based on genetic programming. <i>Natural Hazards and Earth System Sciences</i> , 2012 , 12, 3719-3732	3.9	3
32	Water and People: Assessing Policy Priorities for Climate Change Adaptation in the Mediterranean. <i>Advances in Global Change Research</i> , 2013 , 201-233	1.2	3
31	Probabilistic Model for Real-Time Flood Operation of a Dam Based on a Deterministic Optimization Model. <i>Water (Switzerland)</i> , 2020 , 12, 3206	3	3
30	Dependence Between Extreme Rainfall Events and the Seasonality and Bivariate Properties of Floods. A Continuous Distributed Physically-Based Approach. <i>Water (Switzerland)</i> , 2019 , 11, 1896	3	3
29	Guidelines to Develop Drought Management Plans 2009 , 55-65		3
28	A Meta-multicriteria Approach to Estimate Drought Vulnerability Based on Fuzzy Pattern Recognition. <i>Communications in Computer and Information Science</i> , 2019 , 349-360	0.3	2
27	Experimental Analysis of the Influence of Aeration in the Energy Dissipation of Supercritical Channel Flows. <i>Water (Switzerland)</i> , 2019 , 11, 576	3	2
26	Influence of Erodible Beds on Shallow Water Hydrodynamics during Flood Events. <i>Water (Switzerland)</i> , 2020 , 12, 3340	3	2
25	Facing Future Water Scarcity in the Duero-Douro Basin: Comparative Effect of Policy Measures on Irrigation Water Availability. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2020 , 146, 04020011	2.8	2
24	Flood Control Versus Water Conservation in Reservoirs: A New Policy to Allocate Available Storage. <i>Water (Switzerland)</i> , 2020 , 12, 994	3	2
23	Reorganization of water demand under changing conditions with possibilistic programming. <i>Journal of Hydroinformatics</i> , 2015 , 17, 239-259	2.6	2
22	Design flood hydrographs from the relationship between flood peak and volume		2
21	Unit hydrograph identification based on fuzzy regression analysis. <i>Evolving Systems</i> , 2021 , 12, 701-722	2.1	2
20	Estimation of Fuzzy Parameters in the Linear Muskingum Model with the Aid of Particle Swarm Optimization. <i>Sustainability</i> , 2021 , 13, 7152	3.6	2
19	Energy Dissipation Structures: Influence of Aeration in Supercritical Flows. <i>Proceedings (mdpi)</i> , 2019 , 7, 5	0.3	2
18	Exploring the Role of Reservoir Storage in Enhancing Resilience to Climate Change in Southern Europe. <i>Water (Switzerland)</i> , 2021 , 13, 85	3	2
17	A Stochastic Procedure for Temporal Disaggregation of Daily Rainfall Data in SuDS Design. <i>Water (Switzerland)</i> , 2021 , 13, 403	3	2
16	A New Tool for Assessing Environmental Impacts of Altering Short-Term Flow and Water Level Regimes. <i>Water (Switzerland)</i> , 2020 , 12, 2913	3	1

15	Statistical Dependence of Pipe Breaks on Explanatory Variables. <i>Water (Switzerland)</i> , 2017 , 9, 158	3	1
14	Upscaling the Impacts of Climate Change in Different Sectors and Adaptation Strategies 2018 , 173-243		1
13	The Hydrometeorological Forecasting in the Framework of the European Project Flash. <i>Houille Blanche</i> , 2009 , 95, 66-71	0.3	1
12	A Continental Assessment of Reservoir Storage and Water Availability in South America. <i>Water (Switzerland)</i> , 2021 , 13, 1992	3	1
11	Applying Water Accounting Methods Through Statistical Data and Simulation Models: The Duero Transboundary Watershed. <i>Advances in Chemical Pollution, Environmental Management and Protection</i> , 2018 , 3, 115-146	1.5	1
10	Looking into individual choices and local realities to define adaptation options to drought and climate change. <i>Journal of Environmental Management</i> , 2021 , 293, 112861	7.9	1
9	Development of Drought Management Plans in Spain 2009 , 175-186		1
8	River Levee Overtopping: A Bivariate Methodology for Hydrological Characterization of Overtopping Failure. <i>Journal of Hydrologic Engineering - ASCE</i> , 2020 , 25, 04020026	1.8	0
7	Effects of Key Properties of Rainfall Series on Hydrologic Design of Sustainable Urban Drainage Systems (SUDS). <i>Proceedings (mdpi)</i> , 2019 , 7, 17	0.3	0
6	Pluvial flooding: High-resolution stochastic hazard mapping in urban areas by using fast-processing DEM-based algorithms. <i>Journal of Hydrology</i> , 2022 , 608, 127649	6	0
5	Drought in the Light of Climate Change in the Mediterranean Area 2014 , 203-225		
4	Drought and climate risks 2009 , 62-75		
3	Stochastic Hybrid Event Based and Continuous Approach to Derive Flood Frequency Curve. <i>Water (Switzerland)</i> , 2021 , 13, 1931	3	
2	Effort and Performance of the Management of Water for Agriculture under Climate Change in Southern Europe. <i>Proceedings (mdpi)</i> , 2019 , 7, 6	0.3	
1	Stochastic Assessment of the Influence of Reservoir Operation in Hydrological Dam Safety through Risk Indexes. <i>Proceedings (mdpi)</i> , 2019 , 7, 12	0.3	