Marco Franchini

List of Publications by Year
in descending order

103	3,671	126708	143772
papers	citations	33 h-index	57 g-index

105	105	105	2768
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Comparative analysis of several conceptual rainfall-runoff models. Journal of Hydrology, 1991, 122, 161-219.	2.3	285
2	Physical interpretation and sensitivity analysis of the TOPMODEL. Journal of Hydrology, 1996, 175, 293-338.	2.3	151
3	A short-term, pattern-based model for water-demand forecasting. Journal of Hydroinformatics, 2007, 9, 39-50.	1.1	150
4	Water level forecasting through fuzzy logic and artificial neural network approaches. Hydrology and Earth System Sciences, 2006, 10, 1-17.	1.9	136
5	Battle of the Water Calibration Networks. Journal of Water Resources Planning and Management - ASCE, 2012, 138, 523-532.	1.3	134
6	Path-based methods for the determination of nondispersive drainage directions in grid-based digital elevation models. Water Resources Research, 2003, 39, .	1.7	128
7	Use of a genetic algorithm combined with a local search method for the automatic calibration of conceptual rainfall-runoff models. Hydrological Sciences Journal, 1996, 41, 21-39.	1.2	124
8	Fuzzy neural networks for water level and discharge forecasting with uncertainty. Environmental Modelling and Software, 2011, 26, 523-537.	1.9	101
9	Battle of the Water Networks II. Journal of Water Resources Planning and Management - ASCE, 2014, 140, .	1.3	92
10	A Stochastic Model for Representing Drinking Water Demand at Residential Level. Water Resources Management, 2003, 17, 197-222.	1.9	87
11	Optimal Placement of Isolation Valves in Water Distribution Systems Based on Valve Cost and Weighted Average Demand Shortfall. Water Resources Management, 2010, 24, 4317-4338.	1.9	84
12	Global optimization techniques for the calibration of conceptual rainfall-runoff models. Hydrological Sciences Journal, 1998, 43, 443-458.	1.2	83
13	A heuristic procedure for the automatic creation of district metered areas in water distribution systems. Urban Water Journal, 2014, 11, 137-159.	1.0	77
14	Comparing several genetic algorithm schemes for the calibration of conceptual rainfall-runoff models. Hydrological Sciences Journal, 1997, 42, 357-379.	1.2	66
15	Comparing Low and High-Level Hybrid Algorithms on the Two-Objective Optimal Design of Water Distribution Systems. Water Resources Management, 2015, 29, 1-16.	1.9	66
16	Conceptual design of a generic, real-time, near-optimal control system for water-distribution networks. Journal of Hydroinformatics, 2007, 9, 3-14.	1.1	63
17	Generalized Resilience and Failure Indices for Use with Pressure-Driven Modeling and Leakage. Journal of Water Resources Planning and Management - ASCE, 2016, 142, .	1.3	63
18	Segment identification in water distribution systems. Urban Water Journal, 2011, 8, 203-217.	1.0	62

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19	A new algorithm for real-time pressure control in water distribution networks. Water Science and Technology: Water Supply, 2013, 13, 875-882.	1.0	61
20	Estimating the index flood using indirect methods. Hydrological Sciences Journal, 2001, 46, 399-418.	1.2	60
21	Multiobjective Optimization of Rehabilitation and Leakage Detection Scheduling in Water Distribution Systems. Journal of Water Resources Planning and Management - ASCE, 2009, 135, 426-439.	1.3	58
22	An analysis of the dynamic component of the geomorphologic instantaneous unit hydrograph. Journal of Hydrology, 1996, 175, 407-428.	2.3	56
23	Near-optimal rehabilitation scheduling of water distribution systems based on a multi-objective genetic algorithm. Civil Engineering and Environmental Systems, 2006, 23, 143-160.	0.4	56
24	The combined use of resilience and loop diameter uniformity as a good indirect measure of network reliability. Urban Water Journal, 2016, 13, 167-181.	1.0	52
25	Fast network multi-objective design algorithm combined with an a posteriori procedure for reliability evaluation under various operational scenarios. Urban Water Journal, 2012, 9, 385-399.	1.0	50
26	A flood routing Muskingum type simulation and forecasting model based on level data alone. Water Resources Research, 1994, 30, 2183-2196.	1.7	47
27	Regional analysis of flow duration curves for a limestone region. Water Resources Management, 1996, 10, 199-218.	1.9	44
28	Accounting for Phasing of Construction within the Design of Water Distribution Networks. Journal of Water Resources Planning and Management - ASCE, 2014, 140, 598-606.	1.3	44
29	A multi-objective approach for detecting and responding to accidental and intentional contamination events in water distribution systems. Urban Water Journal, 2009, 6, 115-135.	1.0	43
30	Wireless Middleware Solutions for Smart Water Metering. Sensors, 2019, 19, 1853.	2.1	39
31	Comparison between Entropy and Resilience as Indirect Measures of Reliability in the Framework of Water Distribution Network Design. Procedia Engineering, 2014, 70, 379-388.	1.2	37
32	Unsteady Flow Modeling of Pressure Real-Time Control in Water Distribution Networks. Journal of Water Resources Planning and Management - ASCE, 2017, 143, .	1.3	37
33	A Probabilistic Short-Term Water Demand Forecasting Model Based on the Markov Chain. Water (Switzerland), 2017, 9, 507.	1.2	36
34	Three Methods for Estimating the Entropy Parameter M Based on a Decreasing Number of Velocity Measurements in a River Cross-Section. Entropy, 2014, 16, 2512-2529.	1.1	34
35	Pipe roughness calibration in water distribution systems using grey numbers. Journal of Hydroinformatics, 2010, 12, 424-445.	1.1	33
36	Grey neural networks for river stage forecasting with uncertainty. Physics and Chemistry of the Earth, 2012, 42-44, 108-118.	1.2	33

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37	Evaluating Water Demand Shortfalls in Segment Analysis. Water Resources Management, 2012, 26, 2301-2321.	1.9	32
38	Using EPANET for modelling water distribution systems with users along the pipes. Civil Engineering and Environmental Systems, 2014, 31, 36-50.	0.4	32
39	Estimation of Urban Impervious Fraction from Satellite Images and Its Impact on Peak Discharge Entering a Storm Sewer System. Water Resources Management, 2009, 23, 1893-1915.	1.9	31
40	Comparative analysis of two probabilistic pipe breakage models applied to a real water distribution system. Civil Engineering and Environmental Systems, 2010, 27, 1-22.	0.4	31
41	Generation of synthetic water demand time series at different temporal and spatial aggregation levels. Urban Water Journal, 2014, 11, 297-310.	1.0	31
42	Taking Account of Uncertainty in Demand Growth When Phasing the Construction of a Water Distribution Network. Journal of Water Resources Planning and Management - ASCE, 2015, 141, .	1.3	31
43	Green Smart Technology for Water (GST4Water): Water Loss Identification at User Level by Using Smart Metering Systems. Water (Switzerland), 2019, 11, 405.	1.2	31
44	Comparing calibrated parameter sets of the SWAT model for the Scandinavian and Iberian peninsulas. Hydrological Sciences Journal, 0, , 1-19.	1.2	27
45	A Short-Term Water Demand Forecasting Model Using a Moving Window on Previously Observed Data. Water (Switzerland), 2017, 9, 172.	1.2	27
46	Comparison of Newton-Raphson Global and Loop Algorithms for Water Distribution Network Resolution. Journal of Hydraulic Engineering, 2014, 140, 313-321.	0.7	25
47	Assessment of predictive uncertainty within the framework of water demand forecasting using the Model Conditional Processor (MCP). Urban Water Journal, 2017, 14, 1-10.	1.0	25
48	Analytical derivation of the flood frequency curve through partial duration series analysis and a probabilistic representation of the runoff coefficient. Journal of Hydrology, 2005, 303, 1-15.	2.3	24
49	Case Study: Improving Real-Time Stage Forecasting Muskingum Model by Incorporating the Rating Curve Model. Journal of Hydrologic Engineering - ASCE, 2011, 16, 540-557.	0.8	24
50	A simple approach for stochastic generation of spatial rainfall patterns. Journal of Hydrology, 2012, 472-473, 63-76.	2.3	24
51	A Procedure for the Design of District Metered Areas in Water Distribution Systems. Procedia Engineering, 2014, 70, 41-50.	1.2	24
52	Effects of the COVID-19 Lockdown on Water Consumptions: Northern Italy Case Study. Journal of Water Resources Planning and Management - ASCE, 2021, 147, .	1.3	22
53	Forecasting discharges at the downstream end of a river reach through two simple Muskingum based procedures. Journal of Hydrology, 2011, 399, 335-352.	2.3	21
54	A Rapid Model for Delimiting Flooded Areas. Water Resources Management, 2013, 27, 3825-3846.	1.9	21

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55	Leakage Detection and Localization in a Water Distribution Network through Comparison of Observed and Simulated Pressure Data. Journal of Water Resources Planning and Management - ASCE, 2022, 148, .	1.3	19
56	Optimal placement of valves in a water distribution network with CLP(FD). Theory and Practice of Logic Programming, 2011, 11, 731-747.	1.1	17
57	Estimation of bathymetry (and discharge) in natural river cross-sections by using an entropy approach. Journal of Hydrology, 2015, 527, 20-29.	2.3	17
58	Near-optimal scheduling of device activation in water distribution systems to reduce the impact of a contamination event. Journal of Hydroinformatics, 2012, 14, 345-365.	1.1	16
59	Enhancement and comprehensive evaluation of the Rating Curve Model for different river sites. Journal of Hydrology, 2012, 464-465, 376-387.	2.3	15
60	Multistep Approach for Optimizing Design and Operation of the C-Town Pipe Network Model. Journal of Water Resources Planning and Management - ASCE, 2016, 142, .	1.3	15
61	Analysis of MNF and FAVAD Model for Leakage Characterization by Exploiting Smart-Metered Data: The Case of the Gorino Ferrarese (FE-Italy) District. Water (Switzerland), 2021, 13, 643.	1.2	15
62	Fuzzy unit hydrograph. Water Resources Research, 2006, 42, .	1.7	14
63	Leakages in pipes: generalizing Torricelli's equation to deal with different elastic materials, diameters and orifice shape and dimensions. Urban Water Journal, 2014, 11, 678-695.	1.0	14
64	A robust approach based on time variable trigger levels for pump control. Journal of Hydroinformatics, 2017, 19, 811-822.	1.1	14
65	Battle of Postdisaster Response and Restoration. Journal of Water Resources Planning and Management - ASCE, 2020, 146, 04020067.	1.3	14
66	Experimental analysis of the water consumption effect on the dynamic behaviour of a real pipe network. Journal of Hydraulic Research/De Recherches Hydrauliques, 2021, 59, 477-487.	0.7	14
67	A Methodology for Pumping Control Based on Time Variable Trigger Levels. Procedia Engineering, 2016, 162, 365-372.	1.2	13
68	From Water Consumption Smart Metering to Leakage Characterization at District and User Level: The GST4Water Project. Proceedings (mdpi), 2018, 2, .	0.2	13
69	Stochastic Approach for the Analysis of Demand Induced Transients in Real Water Distribution Systems. Journal of Water Resources Planning and Management - ASCE, 2022, 148, .	1.3	13
70	A conceptual grey rainfall-runoff model for simulation with uncertainty. Journal of Hydroinformatics, 2013, 15, 1-20.	1.1	12
71	A Multi-step Approach for Optimal Design and Management of the C-Town Pipe Network Model. Procedia Engineering, 2014, 89, 37-44.	1.2	12
72	A Procedure for Evaluating the Compatibility of Surface Water Resources with Environmental and Human Requirements. Water Resources Management, 2011, 25, 3613-3634.	1.9	11

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73	Water distribution systems: Using linearized hydraulic equations within the framework of ranking-based optimization algorithms to improve their computational efficiency. Environmental Modelling and Software, 2014, 57, 33-39.	1.9	11
74	A dimensionless procedure for the design of infiltration trenches. Journal - American Water Works Association, 2012, 104, E501.	0.2	10
75	Crisp discharge forecasts and grey uncertainty bands using data-driven models. Hydrology Research, 2012, 43, 589-602.	1.1	9
76	The Identification of Loops in Water Distribution Networks. Procedia Engineering, 2015, 119, 506-515.	1.2	9
77	Model for hydraulic networks with evenly distributed demands along pipes. Civil Engineering and Environmental Systems, 2010, 27, 133-153.	0.4	8
78	Assessment of the Predictive Uncertainty within the Framework of Water Demand Forecasting by Using the Model Conditional Processor. Procedia Engineering, 2014, 89, 893-900.	1.2	8
79	Automated Household Water End-Use Disaggregation through Rule-Based Methodology. Journal of Water Resources Planning and Management - ASCE, 2021, 147, .	1.3	8
80	Low Level Hybrid Procedure for the Multi-objective Design of Water Distribution Networks. Procedia Engineering, 2014, 70, 369-378.	1.2	7
81	Methods for Preserving Durationâ€“Intensity Correlation on Synthetically Generated Water-Demand Pulses. Journal of Water Resources Planning and Management - ASCE, 2016, 142, .	1.3	7
82	Genetic Algorithms for Scheduling Devices Operation in a Water Distribution System in Response to Contamination Events. Lecture Notes in Computer Science, 2012, , 124-135.	1.0	7
83	Bottom-Up Generation of Peak Demand Scenarios in Water Distribution Networks. Sustainability, 2021, 13, 31.	1.6	7
84	A grey-based method for evaluating the effects of rating curve uncertainty on frequency analysis of annual maxima. Journal of Hydroinformatics, 2013, 15, 194-210.	1.1	6
85	Confidence interval of real-time forecast stages provided by the STAFOM-RCM model: the case study of the Tiber River (Italy). Hydrological Processes, 2014, 28, 729-743.	1.1	6
86	Preserving Duration-intensity Correlation on Synthetically Generated Water Demand Pulses. Procedia Engineering, 2015, 119, 1463-1472.	1.2	6
87	Extending the Global-Gradient Algorithm to Solve Pressure-Control Valves. Journal of Water Resources Planning and Management - ASCE, 2020, 146, .	1.3	6
88	Comparing grey formulations of the velocity-area method and entropy method for discharge estimation with uncertainty. Journal of Hydroinformatics, 2014, 16, 797-811.	1.1	5
89	Exploring the impacts of tourism and weather on water consumption at different spatiotemporal scales: evidence from a coastal area on the Adriatic Sea (northern Italy). Environmental Research: Infrastructure and Sustainability, 2022, 2, 025005.	0.9	5
90	Scheduling countermeasures to contamination events by genetic algorithms. AI Communications, 2015, 28, 259-282.	0.8	4

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91	Laboratory Analysis of a Piston-Actuated Pressure-Reducing Valve under Low Flow Conditions. Water (Switzerland), 2020, 12, 940.	1.2	4
92	Combined analytical solution of overland flow and sediment transport. Water Resources Management, 1994, 8, 225-238.	1.9	3
93	A Fast New Method for Segment Identification in Water Distribution Systems. , 2011, , .		3
94	A Procedure for Spatial Aggregation of Synthetic Water Demand Time Series. Procedia Engineering, 2014, 70, 51-60.	1.2	3
95	A Linearization Approach for Improving the Computational Efficiency of Water Distribution System Ranking-based Optimization Algorithms. Procedia Engineering, 2015, 119, 516-525.	1.2	3
96	Innovative and sustainable methodologies for smart water network management. Civil Engineering and Environmental Systems, 2016, 33, 1-2.	0.4	3
97	Minimum Night Flow Analysis and Application of the Fixed and Variable Area Discharges Model for Characterizing Leakage in the Gorino Ferrarese (FE-Italy) District. Environmental Sciences Proceedings, 2020, 2, .	0.3	3
98	Generation of synthetic cross-correlated water demand time series. Water Science and Technology: Water Supply, 2013, 13, 977-986.	1.0	2
99	Five variants of a procedure for spatial aggregation of synthetic water demand time series. Journal of Water Supply: Research and Technology - AQUA, 2015, 64, 629-639.	0.6	2
100	Laboratory Analysis of a Piston-Actuated Pressure Reducing Valve under Low Flow Conditions. Proceedings (mdpi), 2020, 48, 26.	0.2	1
101	Urban Water Management: A Pragmatic Approach. Water (Switzerland), 2020, 12, 3589.	1.2	1
102	Editorial: New techniques and tools for improving efficiency in leakage detection and management. Water Science and Technology: Water Supply, 2013, 13, 871-874.	1.0	0
103	Discussion of â€œEffective Approach for Solving Battle of Water Calibration Network Problemâ€•by Zheng Yi Wu and Thomas M. Walski. Journal of Water Resources Planning and Management - ASCE, 2014, 140, 128-131.	1.3	0