Marco Franchini

List of Publications by Year in Descending Order

98 papers	2,901 citations	30 h-index	50 g-index
105 ext. papers	3,246 ext. citations	3 avg, IF	5.47 L-index

#	Paper	IF	Citations
98	Stochastic Approach for the Analysis of Demand Induced Transients in Real Water Distribution Systems. *Journal of Water Resources Planning and Management - ASCE*, **2022**, 148,	2.8	4
97	Bottom-Up Generation of Peak Demand Scenarios in Water Distribution Networks. *Sustainability*, **2021**, 13, 31	3.6	4
96	Automated Household Water End-Use Disaggregation through Rule-Based Methodology. *Journal of Water Resources Planning and Management - ASCE*, **2021**, 147, 04021024	2.8	1
95	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	1.9	2
94	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	3	7
93	Effects of the COVID-19 Lockdown on Water Consumptions: Northern Italy Case Study. *Journal of Water Resources Planning and Management - ASCE*, **2021**, 147, 05021021	2.8	3
92	Laboratory Analysis of a Piston-Actuated Pressure Reducing Valve under Low Flow Conditions. *Proceedings (mdpi)*, **2020**, 48, 26	0.3	
91	Battle of Postdisaster Response and Restoration. *Journal of Water Resources Planning and Management - ASCE*, **2020**, 146, 04020067	2.8	4
90	Extending the Global-Gradient Algorithm to Solve Pressure-Control Valves. *Journal of Water Resources Planning and Management - ASCE*, **2020**, 146, 04020055	2.8	4
89	Laboratory Analysis of a Piston-Actuated Pressure-Reducing Valve under Low Flow Conditions. *Water (Switzerland)*, **2020**, 12, 940	3	1
88	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, 8	1	2
87	Wireless Middleware Solutions for Smart Water Metering. *Sensors*, **2019**, 19,	3.8	25
86	Green Smart Technology for Water (GST4Water): Water Loss Identification at User Level by Using Smart Metering Systems. *Water (Switzerland)*, **2019**, 11, 405	3	18
85	From Water Consumption Smart Metering to Leakage Characterization at District and User Level: The GST4Water Project. *Proceedings (mdpi)*, **2018**, 2, 675	0.3	9
84	Assessment of predictive uncertainty within the framework of water demand forecasting using the Model Conditional Processor (MCP). *Urban Water Journal*, **2017**, 14, 1-10	2.3	22
83	A robust approach based on time variable trigger levels for pump control. *Journal of Hydroinformatics*, **2017**, 19, 811-822	2.6	7
82	A Probabilistic Short-Term Water Demand Forecasting Model Based on the Markov Chain. *Water (Switzerland)*, **2017**, 9, 507	3	27

81	Unsteady Flow Modeling of Pressure Real-Time Control in Water Distribution Networks. *Journal of Water Resources Planning and Management - ASCE*, **2017**, 143, 04017056	2.8	29
80	A Short-Term Water Demand Forecasting Model Using a Moving Window on Previously Observed Data. *Water (Switzerland)*, **2017**, 9, 172	3	19
79	The combined use of resilience and loop diameter uniformity as a good indirect measure of network reliability. *Urban Water Journal*, **2016**, 13, 167-181	2.3	40
78	Multistep Approach for Optimizing Design and Operation of the C-Town Pipe Network Model. *Journal of Water Resources Planning and Management - ASCE*, **2016**, 142,	2.8	14
77	Methods for Preserving Duration–Intensity Correlation on Synthetically Generated Water-Demand Pulses. *Journal of Water Resources Planning and Management - ASCE*, **2016**, 142, 06015002	2.8	5
76	A Methodology for Pumping Control Based on Time Variable Trigger Levels. *Procedia Engineering*, **2016**, 162, 365-372		6
75	Generalized Resilience and Failure Indices for Use with Pressure-Driven Modeling and Leakage. *Journal of Water Resources Planning and Management - ASCE*, **2016**, 142, 04016019	2.8	44
74	Comparing calibrated parameter sets of the SWAT model for the Scandinavian and Iberian peninsulas. *Hydrological Sciences Journal*, **2015**, 1-19	3.5	23
73	Scheduling countermeasures to contamination events by genetic algorithms. *AI Communications*, **2015**, 28, 259-282	0.8	4
72	Estimation of bathymetry (and discharge) in natural river cross-sections by using an entropy approach. *Journal of Hydrology*, **2015**, 527, 20-29	6	12
71	Comparing Low and High-Level Hybrid Algorithms on the Two-Objective Optimal Design of Water Distribution Systems. *Water Resources Management*, **2015**, 29, 1-16	3.7	59
70	Five variants of a procedure for spatial aggregation of synthetic water demand time series **2015**, 64, 629-639		2
69	A Linearization Approach for Improving the Computational Efficiency of Water Distribution System Ranking-based Optimization Algorithms. *Procedia Engineering*, **2015**, 119, 516-525		3
68	Preserving Duration-intensity Correlation on Synthetically Generated Water Demand Pulses. *Procedia Engineering*, **2015**, 119, 1463-1472		5
67	The Identification of Loops in Water Distribution Networks. *Procedia Engineering*, **2015**, 119, 506-515		9
66	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, 04014049	2.8	21
65	Battle of the Water Networks II. *Journal of Water Resources Planning and Management - ASCE*, **2014**, 140, 04014009	2.8	67
64	Accounting for Phasing of Construction within the Design of Water Distribution Networks. *Journal of Water Resources Planning and Management - ASCE*, **2014**, 140, 598-606	2.8	34

63	Generation of synthetic water demand time series at different temporal and spatial aggregation levels. *Urban Water Journal*, **2014**, 11, 297-310	2.3	29
62	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	2.3	12
61	Using EPANET for modelling water distribution systems with users along the pipes. *Civil Engineering and Environmental Systems*, **2014**, 31, 36-50	2.1	26
60	A Procedure for the Design of District Metered Areas in Water Distribution Systems. *Procedia Engineering*, **2014**, 70, 41-50		16
59	A Procedure for Spatial Aggregation of Synthetic Water Demand Time Series. *Procedia Engineering*, **2014**, 70, 51-60		3
58	Comparison between Entropy and Resilience as Indirect Measures of Reliability in the Framework of Water Distribution Network Design. *Procedia Engineering*, **2014**, 70, 379-388		31
57	A heuristic procedure for the automatic creation of district metered areas in water distribution systems. *Urban Water Journal*, **2014**, 11, 137-159	2.3	64
56	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	3.3	5
55	Assessment of the Predictive Uncertainty within the Framework of Water Demand Forecasting by Using the Model Conditional Processor. *Procedia Engineering*, **2014**, 89, 893-900		6
54	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	2.8	23
53	A Multi-step Approach for Optimal Design and Management of the C-Town Pipe Network Model. *Procedia Engineering*, **2014**, 89, 37-44		10
52	Discussion of "Effective Approach for Solving Battle of Water Calibration Network Problem" by Zheng Yi Wu and Thomas M. Walski. *Journal of Water Resources Planning and Management - ASCE*, **2014**, 140, 128-131	2.8	
51	Comparing grey formulations of the velocity-area method and entropy method for discharge estimation with uncertainty. *Journal of Hydroinformatics*, **2014**, 16, 797-811	2.6	4
50	Comparison of Newton-Raphson Global and Loop Algorithms for Water Distribution Network Resolution. *Journal of Hydraulic Engineering*, **2014**, 140, 313-321	1.8	24
49	Low Level Hybrid Procedure for the Multi-objective Design of Water Distribution Networks. *Procedia Engineering*, **2014**, 70, 369-378		7
48	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	5.2	9
47	A Rapid Model for Delimiting Flooded Areas. *Water Resources Management*, **2013**, 27, 3825-3846	3.7	13
46	A conceptual grey rainfall-runoff model for simulation with uncertainty. *Journal of Hydroinformatics* , **2013**, 15, 1-20	2.6	9

45	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	2.6	5
44	A new algorithm for real-time pressure control in water distribution networks. *Water Science and Technology: Water Supply*, **2013**, 13, 875-882	1.4	50
43	Generation of synthetic cross-correlated water demand time series. *Water Science and Technology: Water Supply*, **2013**, 13, 977-986	1.4	2
42	Grey neural networks for river stage forecasting with uncertainty. *Physics and Chemistry of the Earth*, **2012**, 42-44, 108-118	3	29
41	Enhancement and comprehensive evaluation of the Rating Curve Model for different river sites. *Journal of Hydrology*, **2012**, 464-465, 376-387	6	13
40	A simple approach for stochastic generation of spatial rainfall patterns. *Journal of Hydrology*, **2012**, 472-473, 63-76	6	20
39	Battle of the Water Calibration Networks. *Journal of Water Resources Planning and Management - ASCE*, **2012**, 138, 523-532	2.8	95
38	Evaluating Water Demand Shortfalls in Segment Analysis. *Water Resources Management*, **2012**, 26, 2301-2321	3.7	25
37	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	2.3	46
36	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	2.6	14
35	Crisp discharge forecasts and grey uncertainty bands using data-driven models **2012**, 43, 589-602		9
34	A dimensionless procedure for the design of infiltration trenches. *Journal - American Water Works Association*, **2012**, 104, E501-E509	0.5	7
33	Genetic Algorithms for Scheduling Devices Operation in a Water Distribution System in Response to Contamination Events. *Lecture Notes in Computer Science*, **2012**, 124-135	0.9	4
32	Optimal placement of valves in a water distribution network with CLP(FD). *Theory and Practice of Logic Programming*, **2011**, 11, 731-747	0.8	14
31	Forecasting discharges at the downstream end of a river reach through two simple Muskingum based procedures. *Journal of Hydrology*, **2011**, 399, 335-352	6	18
30	A Procedure for Evaluating the Compatibility of Surface Water Resources with Environmental and Human Requirements. *Water Resources Management*, **2011**, 25, 3613-3634	3.7	10
29	Segment identification in water distribution systems. *Urban Water Journal*, **2011**, 8, 203-217	2.3	47
28	Case Study: Improving Real-Time Stage Forecasting Muskingum Model by Incorporating the Rating Curve Model. *Journal of Hydrologic Engineering - ASCE*, **2011**, 16, 540-557	1.8	21

27	Fuzzy neural networks for water level and discharge forecasting with uncertainty. *Environmental Modelling and Software*, **2011**, 26, 523-537	5.2	84
26	A Fast New Method for Segment Identification in Water Distribution Systems **2011**,		3
25	Comparative analysis of two probabilistic pipe breakage models applied to a real water distribution system. *Civil Engineering and Environmental Systems*, **2010**, 27, 1-22	2.1	26
24	Pipe roughness calibration in water distribution systems using grey numbers. *Journal of Hydroinformatics*, **2010**, 12, 424-445	2.6	22
23	Model for hydraulic networks with evenly distributed demands along pipes. *Civil Engineering and Environmental Systems*, **2010**, 27, 133-153	2.1	8
22	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	3.7	62
21	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	3.7	26
20	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	2.3	31
19	Multiobjective Optimization of Rehabilitation and Leakage Detection Scheduling in Water Distribution Systems. *Journal of Water Resources Planning and Management - ASCE*, **2009**, 135, 426-439	2.8	46
18	Conceptual design of a generic, real-time, near-optimal control system for water-distribution networks. *Journal of Hydroinformatics*, **2007**, 9, 3-14	2.6	57
17	A short-term, pattern-based model for water-demand forecasting. *Journal of Hydroinformatics*, **2007**, 9, 39-50	2.6	121
16	Near-optimal rehabilitation scheduling of water distribution systems based on a multi-objective genetic algorithm. *Civil Engineering and Environmental Systems*, **2006**, 23, 143-160	2.1	45
15	Fuzzy unit hydrograph. *Water Resources Research*, **2006**, 42,	5.4	11
14	Water level forecasting through fuzzy logic and artificial neural network approaches. *Hydrology and Earth System Sciences*, **2006**, 10, 1-17	5.5	104
13	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	6	21
12	A Stochastic Model for Representing Drinking Water Demand at Residential Level. *Water Resources Management*, **2003**, 17, 197-222	3.7	70
11	Path-based methods for the determination of nondispersive drainage directions in grid-based digital elevation models. *Water Resources Research*, **2003**, 39,	5.4	104
10	Estimating the index flood using indirect methods. *Hydrological Sciences Journal*, **2001**, 46, 399-418	3.5	52

9	Global optimization techniques for the calibration of conceptual rainfall-runoff models. *Hydrological Sciences Journal*, **1998**, 43, 443-458	3.5	68
8	Comparing several genetic algorithm schemes for the calibration of conceptual rainfall-runoff models. *Hydrological Sciences Journal*, **1997**, 42, 357-379	3.5	56
7	Physical interpretation and sensitivity analysis of the TOPMODEL. *Journal of Hydrology*, **1996**, 175, 293-338	6	136
6	An analysis of the dynamic component of the geomorphologic instantaneous unit hydrograph. *Journal of Hydrology*, **1996**, 175, 407-428	6	53
5	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	3.5	105
4	Regional analysis of flow duration curves for a limestone region. *Water Resources Management*, **1996**, 10, 199-218	3.7	37
3	Combined analytical solution of overland flow and sediment transport. *Water Resources Management*, **1994**, 8, 225-238	3.7	3
2	A flood routing Muskingum type simulation and forecasting model based on level data alone. *Water Resources Research*, **1994**, 30, 2183-2196	5.4	44
1	Comparative analysis of several conceptual rainfall-runoff models. *Journal of Hydrology*, **1991**, 122, 161-219	6	245