

# Orazio Giustolisi

## List of Publications by Year in descending order

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122  
papers

3,943  
citations

109321

35  
h-index

133252

59  
g-index

130  
all docs

130  
docs citations

130  
times ranked

1983  
citing authors

#	ARTICLE	IF	CITATIONS
1	Pressure-Driven Demand and Leakage Simulation for Water Distribution Networks. Journal of Hydraulic Engineering, 2008, 134, 626-635.	1.5	306
2	A symbolic data-driven technique based on evolutionary polynomial regression. Journal of Hydroinformatics, 2006, 8, 207-222.	2.4	272
3	Advances in data-driven analyses and modelling using EPR-MOGA. Journal of Hydroinformatics, 2009, 11, 225-236.	2.4	176
4	Development of pipe deterioration models for water distribution systems using EPR. Journal of Hydroinformatics, 2008, 10, 113-126.	2.4	166
5	Battle of the Water Calibration Networks. Journal of Water Resources Planning and Management - ASCE, 2012, 138, 523-532.	2.6	134
6	Identification of segments and optimal isolation valve system design in water distribution networks. Urban Water Journal, 2010, 7, 1-15.	2.1	121
7	Demand Components in Water Distribution Network Analysis. Journal of Water Resources Planning and Management - ASCE, 2012, 138, 356-367.	2.6	108
8	A multi-model approach to analysis of environmental phenomena. Environmental Modelling and Software, 2007, 22, 674-682.	4.5	105
9	Using genetic programming to determine Chzy resistance coefficient in corrugated channels. Journal of Hydroinformatics, 2004, 6, 157-173.	2.4	90
10	Improving generalization of artificial neural networks in rainfall-runoff modelling / Amélioration de la généralisation de réseaux de neurones artificiels pour la modélisation pluie-débit. Hydrological Sciences Journal, 2005, 50, .	2.6	89
11	Deterministic versus Stochastic Design of Water Distribution Networks. Journal of Water Resources Planning and Management - ASCE, 2009, 135, 117-127.	2.6	87
12	Algorithm for Automatic Detection of Topological Changes in Water Distribution Networks. Journal of Hydraulic Engineering, 2008, 134, 435-446.	1.5	82
13	New Modularity-Based Approach to Segmentation of Water Distribution Networks. Journal of Hydraulic Engineering, 2014, 140, .	1.5	78
14	Development of rehabilitation plans for water mains replacement considering risk and cost-benefit assessment. Civil Engineering and Environmental Systems, 2006, 23, 175-190.	0.9	71
15	Scour depth modelling by a multi-objective evolutionary paradigm. Environmental Modelling and Software, 2011, 26, 498-509.	4.5	68
16	Optimal design of artificial neural networks by a multi-objective strategy: groundwater level predictions. Hydrological Sciences Journal, 2006, 51, 502-523.	2.6	61
17	Extended Period Simulation Analysis Considering Valve Shutdowns. Journal of Water Resources Planning and Management - ASCE, 2008, 134, 527-537.	2.6	60
18	Evaluation of liquefaction potential based on CPT results using evolutionary polynomial regression. Computers and Geotechnics, 2010, 37, 82-92.	4.7	58

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19	An evolutionary-based data mining technique for assessment of civil engineering systems. <i>Engineering Computations</i> , 2008, 25, 500-517.	1.4	57
20	Pipe hydraulic resistance correction in WDN analysis. <i>Urban Water Journal</i> , 2009, 6, 39-52.	2.1	55
21	Optimal Design of District Metering Areas for the Reduction of Leakages. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2017, 143, .	2.6	55
22	Modelling sewer failure by evolutionary computing. <i>Water Management</i> , 2006, 159, 111-118.	1.2	51
23	Operational Optimization: Water Losses versus Energy Costs. <i>Journal of Hydraulic Engineering</i> , 2013, 139, 410-423.	1.5	48
24	Detecting anomalies in water distribution networks using EPR modelling paradigm. <i>Journal of Hydroinformatics</i> , 2016, 18, 409-427.	2.4	47
25	Tailoring Centrality Metrics for Water Distribution Networks. <i>Water Resources Research</i> , 2019, 55, 2348-2369.	4.2	47
26	Asset deterioration analysis using multi-utility data and multi-objective data mining. <i>Journal of Hydroinformatics</i> , 2009, 11, 211-224.	2.4	46
27	Operational and Tactical Management of Water and Energy Resources in Pressurized Systems: Competition at WDSA 2014. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2016, 142, .	2.6	44
28	Prioritizing Pipe Replacement: From Multiobjective Genetic Algorithms to Operational Decision Support. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2009, 135, 484-492.	2.6	43
29	Study on relationships between climate-related covariates and pipe bursts using evolutionary-based modelling. <i>Journal of Hydroinformatics</i> , 2014, 16, 743-757.	2.4	43
30	A novel infrastructure modularity index for the segmentation of water distribution networks. <i>Water Resources Research</i> , 2014, 50, 7648-7661.	4.2	43
31	Network structure classification and features of water distribution systems. <i>Water Resources Research</i> , 2017, 53, 3407-3423.	4.2	41
32	Assessing mechanical vulnerability in water distribution networks under multiple failures. <i>Water Resources Research</i> , 2014, 50, 2586-2599.	4.2	40
33	Vulnerability Assessment of Water Distribution Networks under Seismic Actions. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2015, 141, .	2.6	40
34	Generalizing WDN simulation models to variable tank levels. <i>Journal of Hydroinformatics</i> , 2012, 14, 562-573.	2.4	39
35	An evolutionary multiobjective strategy for the effective management of groundwater resources. <i>Water Resources Research</i> , 2008, 44, .	4.2	37
36	Comparison of three data-driven techniques in modelling the evapotranspiration process. <i>Journal of Hydroinformatics</i> , 2010, 12, 365-379.	2.4	36

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37	Considering Actual Pipe Connections in Water Distribution Network Analysis. Journal of Hydraulic Engineering, 2010, 136, 889-900.	1.5	35
38	Water Distribution Network Pressure-Driven Analysis Using the Enhanced Global Gradient Algorithm (EGGA). Journal of Water Resources Planning and Management - ASCE, 2011, 137, 498-510.	2.6	35
39	Some explicit formulations of Colebrook's "White friction factor considering accuracy vs. computational speed. Journal of Hydroinformatics, 2011, 13, 401-418.	2.4	34
40	Water Distribution Network Reliability Assessment and Isolation Valve System. Journal of Water Resources Planning and Management - ASCE, 2020, 146, 04019064.	2.6	33
41	Inferring groundwater system dynamics from hydrological time-series data. Hydrological Sciences Journal, 2010, 55, 593-608.	2.6	32
42	Computationally Efficient Modeling Method for Large Water Network Analysis. Journal of Hydraulic Engineering, 2012, 138, 313-326.	1.5	32
43	Assessing climate change and asset deterioration impacts on water distribution networks: Demand-driven or pressure-driven network modeling?. Environmental Modelling and Software, 2012, 37, 206-216.	4.5	31
44	Prediction of weekly nitrate-N fluctuations in a small agricultural watershed in Illinois. Journal of Hydroinformatics, 2010, 12, 251-261.	2.4	30
45	Modelling mechanical behaviour of rubber concrete using evolutionary polynomial regression. Engineering Computations, 2011, 28, 492-507.	1.4	29
46	Embedding the intrinsic relevance of vertices in network analysis: the case of centrality metrics. Scientific Reports, 2020, 10, 3297.	3.3	29
47	An effective multi-objective approach to prioritisation of sewer pipe inspection. Water Science and Technology, 2009, 60, 841-850.	2.5	28
48	Battle of Background Leakage Assessment for Water Networks (BBLAWN) at WDSA Conference 2014. Procedia Engineering, 2014, 89, 4-12.	1.2	27
49	A proposal of optimal sampling design using a modularity strategy. Water Resources Research, 2016, 52, 6171-6185.	4.2	26
50	An investigation on stream temperature analysis based on evolutionary computing. Hydrological Processes, 2008, 22, 315-326.	2.6	24
51	Calibration of Design Models for Leakage Management of Water Distribution Networks. Water Resources Management, 2021, 35, 2537-2551.	3.9	22
52	Accounting for uniformly distributed pipe demand in WDN analysis: enhanced GGA. Urban Water Journal, 2010, 7, 243-255.	2.1	21
53	Leakage Management: Planning Remote Real Time Controlled Pressure Reduction in Opegegård Municipality. Procedia Engineering, 2015, 119, 72-81.	1.2	21
54	Selection of relevant input variables in storm water quality modeling by multiobjective evolutionary polynomial regression paradigm. Water Resources Research, 2016, 52, 2403-2419.	4.2	20

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55	Modeling Local Water Storages Delivering Customer Demands in WDN Models. Journal of Hydraulic Engineering, 2014, 140, 89-104.	1.5	19
56	Estimating Leakages in Water Distribution Networks Based Only on Inlet Flow Data. Journal of Water Resources Planning and Management - ASCE, 2017, 143, .	2.6	19
57	Strategies for the electric regulation of pressure control valves. Journal of Hydroinformatics, 2017, 19, 621-639.	2.4	18
58	An integrated modelling approach for the assessment of land use change effects on wastewater infrastructures. Environmental Modelling and Software, 2009, 24, 1522-1528.	4.5	17
59	Water distribution network calibration using enhanced GGA and topological analysis. Journal of Hydroinformatics, 2011, 13, 621-641.	2.4	17
60	Optimal Water Distribution Network Design Accounting for Valve Shutdowns. Journal of Water Resources Planning and Management - ASCE, 2014, 140, 277-287.	2.6	17
61	The activation of ephemeral streams in karst catchments of semi-arid regions. Catena, 2012, 99, 54-65.	5.0	16
62	Leakage Management: WDNNetXL Pressure Control Module. Procedia Engineering, 2015, 119, 82-90.	1.2	16
63	General metrics for segmenting infrastructure networks. Journal of Hydroinformatics, 2015, 17, 505-517.	2.4	16
64	Relevance of hydraulic modelling in planning and operating real-time pressure control: case of Oppede municipality. Journal of Hydroinformatics, 2018, 20, 535-550.	2.4	14
65	Sparse solution in training artificial neural networks. Neurocomputing, 2004, 56, 285-304.	5.9	13
66	Using a multi-objective genetic algorithm for SVM construction. Journal of Hydroinformatics, 2006, 8, 125-139.	2.4	13
67	Simulating floods in ephemeral streams in Southern Italy by full-2D hydraulic models. International Journal of River Basin Management, 2013, 11, 1-17.	2.7	13
68	A Methodology to Estimate Leakages in Water Distribution Networks Based on Inlet Flow Data Analysis. Procedia Engineering, 2016, 162, 411-418.	1.2	13
69	Edge betweenness for water distribution networks domain analysis. Journal of Hydroinformatics, 2020, 22, 121-131.	2.4	13
70	Accounting for Directional Devices in WDN Modeling. Journal of Hydraulic Engineering, 2012, 138, 858-869.	1.5	12
71	Input-output dynamic neural networks simulating inflow-outflow phenomena in an urban hydrological basin. Journal of Hydroinformatics, 2000, 2, 269-279.	2.4	11
72	Supporting Decision on Energy vs. Asset Cost Optimization in Drinking Water Distribution Networks. Procedia Engineering, 2014, 70, 734-743.	1.2	9

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73	Active Leakage Control with WNetXL. Procedia Engineering, 2016, 154, 62-70.	1.2	9
74	A Novel Approach to Analyze the Isolation Valve System Based on the Complex Network Theory. Water Resources Research, 2022, 58, .	4.2	9
75	Ensemble modeling approach for rainfall/groundwater balancing. Journal of Hydroinformatics, 2007, 9, 95-106.	2.4	8
76	Hydraulic System Modelling: Background Leakage Model Calibration in Oppegård Municipality. Procedia Engineering, 2015, 119, 633-642.	1.2	8
77	Optimal Design of District Metering Areas. Procedia Engineering, 2016, 162, 403-410.	1.2	8
78	Supporting Real-time Pressure Control in Oppegård Municipality with WNetXL. Procedia Engineering, 2016, 154, 71-79.	1.2	8
79	Feasibility of Mass Balance Approach to Water Distribution Network Model Calibration. Procedia Engineering, 2017, 186, 551-558.	1.2	8
80	Dealing with Uncertainty through Real Options for the Multi-objective Design of Water Distribution Networks. Procedia Engineering, 2014, 89, 856-863.	1.2	7
81	Testing linear solvers for global gradient algorithm. Journal of Hydroinformatics, 2014, 16, 1178-1193.	2.4	7
82	Water Distribution System Modeling and Optimization: A Case Study. Procedia Engineering, 2015, 119, 719-724.	1.2	7
83	Reliability analysis of complex water distribution systems: the role of the network connectivity and tanks. Journal of Hydroinformatics, 2022, 24, 128-142.	2.4	7
84	Analysis of the isolation valve system in water distribution networks using the segment graph. Water Resources Management, 0, , .	3.9	7
85	WNetXL: Hydraulic and Topology Analysis Integration and Features. Procedia Engineering, 2015, 119, 669-679.	1.2	6
86	Special Issue on the Battle of Background Leakage Assessment for Water Networks. Journal of Water Resources Planning and Management - ASCE, 2016, 142, .	2.6	6
87	Water Network Design Using a Multiobjective Real Options Framework. Journal of Optimization, 2017, 2017, 1-13.	6.0	6
88	Topological and hydraulic metrics-based search space reduction for optimal re-sizing of water distribution networks. Journal of Hydroinformatics, 2022, 24, 610-621.	2.4	6
89	Seismic Reliability Assessment of Water Distribution Networks. Procedia Engineering, 2014, 70, 998-1007.	1.2	5
90	Enhanced WDN Hydraulic Modelling and Detection of Burst Leakages. Procedia Engineering, 2016, 162, 3-14.	1.2	5

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91	Towards serious gaming for water distribution networks sizing: a teaching experiment. Journal of Hydroinformatics, 2019, 21, 207-222.	2.4	5
92	Digital Transformation Paradigm for Asset Management in Water Distribution Networks. , 2021, , .		5
93	A Simulation Model for Detecting Topological Changes in a Water Distribution Network. , 2007, , 1.		4
94	Determination of friction factor for corrugated drains. Water Management, 2008, 161, 31-42.	1.2	4
95	Calibration of Water Distribution System Using Topological Analysis. , 2011, , .		4
96	Energy Saving and Leakage Control in Water Distribution Networks: A Joint Research Project between Italy and China. Procedia Engineering, 2014, 70, 152-161.	1.2	4
97	Flexible investment planning for water distribution networks. Journal of Hydroinformatics, 2018, 20, 18-33.	2.4	4
98	Detecting Topological Changes in Large Water Distribution Networks. , 2009, , .		3
99	Modularity Index for Hydraulic System Segmentation. Procedia Engineering, 2014, 89, 1152-1159.	1.2	3
100	Integrated pressure control strategies for sustainable management of water distribution networks. E3S Web of Conferences, 2019, 85, 06005.	0.5	3
101	New Concepts and Tools for Pipe Network Design. , 2009, , .		2
102	Advancements in Water Distribution Network Simulation by Enhanced GGA. , 2011, , .		2
103	A Tool for Preliminary WDN Topological Analysis. , 2011, , .		2
104	WQNetXL: A MS-excel Water Quality System Tool for WDNs. Procedia Engineering, 2014, 89, 262-272.	1.2	2
105	Reducing background leakages and energy consumption in a real WDN by optimal DMA design. , 2017, , .		2
106	Report on Hydroinformatics 2004, Singapore. Journal of Hydroinformatics, 2005, 7, 1-2.	2.4	1
107	Optimal Design of Isolation Valve System for Water Distribution Networks. , 2009, , .		1
108	Enhanced Global Gradient Algorithm: A General Formulation. , 2009, , .		1

#	ARTICLE	IF	CITATIONS
109	Optimal Pipe Replacement Accounting for Leakage Reduction and Isolation Valves. , 2009, , .		1
110	Analysis of Simplification Errors for Water Distribution Models. , 2011, , .		1
111	Accounting for Local Water Storages in Assessing WDN Supply Capacity. Procedia Engineering, 2014, 70, 142-151.	1.2	1
112	Modularity Index for Optimal Sensor Placement in WDNs. Springer Water, 2018, , 433-447.	0.3	1
113	Scenarios of Contaminant Diffusion on a Medium Size Urban Water Distribution Network. , 2009, , .		0
114	Enhanced WDN Analysis: Representation of Actual Pipe Connections. , 2009, , .		0
115	An Operative Approach to Water Distribution System Rehabilitation. , 2009, , .		0
116	A Strategy for Real Options from Multi-objective Optimal Design. Procedia Engineering, 2014, 89, 831-838.	1.2	0
117	A Proposal of Optimal Sampling Design Using Infrastructure Modularity. Procedia Engineering, 2017, 186, 559-566.	1.2	0
118	Optimal pump scheduling strategies accounting for background leakages and energy cost. , 2017, , .		0
119	Supporting Design of Combined Energy Recovery and Pressure Control in a Water Distribution System. , 2019, , .		0
120	Modelling an Urban Groundwater Well Field with WDNNetXL/WDNetGIS. , 2019, , .		0
121	Advanced Hydraulic Analysis for Energy Assessment in a Real Water Distribution Network. , 2019, , .		0
122	Effects of Orifice Diameter and Retention Time of Local Tanks on the Reliability and Carbon Footprint of Water Distribution Networks. Journal of Water Resources Planning and Management - ASCE, 2021, 147, 05021023.	2.6	0