DÃ-dia Covas

List of Publications by Year
in descending order

121 papers	2,855 citations	201674 27 h-index	206112 48 g-index
122 all docs	122 docs citations	122 times ranked	1327 citing authors

#	Article	IF	Citations
1	A Distress-Based Condition Assessment Approach of Urban Water Assets Using Novel Deterioration Indices. Water Resources Management, 2022, 36, 1075-1092.	3.9	2
2	A novel energy balance tailored for wastewater systems. Urban Water Journal, 2022, 19, 441-452.	2.1	4
3	Lessons Learnt from the Application of MCDA Sorting Methods to Pipe Network Rehabilitation Prioritization. Water (Switzerland), 2022, 14, 736.	2.7	5
4	Water, Energy, and Emissions Nexus: Effect of Inflows in Urban Drainage Systems. Water (Switzerland), 2022, 14, 868.	2.7	4
5	Induced Circulation by Plunging and Submerged Jets in Circular Water Storage Tanks Using CFD. Water (Switzerland), 2022, 14, 1277.	2.7	3
6	Multi-objective optimization of pressure sensor location for burst detection and network calibration. Computers and Chemical Engineering, 2022, 162, 107826.	3.8	8
7	Flowrate Time Series Processing in Engineering Tools for Water Distribution Networks. Water Resources Research, 2022, 58, .	4.2	5
8	Characterization of drinking water storage tanks in Portugal. IngenierÃa Del Agua, 2021, 25, 49.	0.4	5
9	Effect of an entrapped air pocket on hydraulic transients in pressurized pipes. Journal of Hydraulic Research/De Recherches Hydrauliques, 2021, 59, 1018-1030.	1.7	8
10	Multi-criteria decision analysis in urban water asset management. Urban Water Journal, 2021, 18, 558-569.	2.1	10
11	Characterisation of low-Reynolds number flow through an orifice: CFD results vs. laboratory data. Journal of Hydroinformatics, 2021, 23, 709-723.	2.4	5
12	Performance Assessment System for Energy Efficiency in Wastewater Systems. Water (Switzerland), 2021, 13, 1807.	2.7	4
13	Hydroenergy Harvesting Assessment: The Case Study of Alviela River. Water (Switzerland), 2021, 13, 1764.	2.7	3
14	Nearâ€"Real Time Burst Location and Sizing in Water Distribution Systems Using Artificial Neural Networks. Water (Switzerland), 2021, 13, 1841.	2.7	11
15	Improving Water Age in Distribution Systems by Optimal Valve Operation. Journal of Water Resources Planning and Management - ASCE, 2021, 147, .	2.6	7
16	Optimal Number of Pressure Sensors for Real-Time Monitoring of Distribution Networks by Using the Hypervolume Indicator. Water (Switzerland), 2021, 13, 2235.	2.7	10
17	Enhanced Water Age Performance Assessment in Distribution Networks. Water (Switzerland), 2021, 13, 2574.	2.7	5
18	Water and Energy Efficiency Assessment in Urban Green Spaces. Energies, 2021, 14, 5490.	3.1	7

#	Article	IF	Citations
19	Uncertainty evaluation related with the fitting of probability distributions to rainfall experimental data. Measurement: Sensors, 2021, 18, 100284.	1.7	0
20	Energy Balance in Wastewater Systems with Energy Recovery: A Portuguese Case Study. Infrastructures, 2021, 6, 141.	2.8	4
21	Water Mixing and Renewal in Circular Cross-Section Storage Tanks as Influenced by Configuration and Operational Conditions. Journal of Hydraulic Engineering, 2021, 147, .	1.5	5
22	Rehabilitation of an Industrial Water Main Using Multicriteria Decision Analysis. Water (Switzerland), 2021, 13, 3180.	2.7	2
23	Data integration for infrastructure asset management in small to medium-sized water utilities. Water Science and Technology, 2020, 82, 2737-2744.	2.5	18
24	Modelling chlorine wall decay in a full-scale water supply system. Urban Water Journal, 2020, 17, 754-762.	2.1	24
25	Pressure Transients in a Sewage Pumping System: Field Tests and Hydraulic Modelling. , 2020, , .		0
26	Novel methodology for efficiency-based long-term investment planning in water infrastructures. Structure and Infrastructure Engineering, 2020, 16, 1654-1668.	3.7	18
27	Impacto de afluÃªncias indevidas no consumo energÃ©tico em instalaÃ§Ãµes elevatÃ³rias em sistemas de drenagem urbana. Ãguas E ResÃduos, 2020, , 29-40.	0.1	3
28	Using economic asset valuation to meet rehabilitation priority needs in the water sector. Urban Water Journal, 2019, 16, 205-214.	2.1	16
29	A comprehensive water balance methodology for collective irrigation systems. Agricultural Water Management, 2019, 223, 105660.	5.6	16
30	Variable speed operation of centrifugal pumps running as turbines. Experimental investigation. Renewable Energy, 2019, 142, 437-450.	8.9	54
31	Hill chart modelling using the Hermite polynomial chaos expansion for the performance prediction of pumps running as turbines. Energy Conversion and Management, 2019, 187, 578-592.	9.2	18
32	Estimation of costs for monitoring urban water and wastewater networks. Journal of Water Supply: Research and Technology - AQUA, 2019, 68, 87-97.	1.4	10
33	Demand scenario planning approach using regression techniques and application to network sectors in Portugal. Water Policy, 2019, 21, 394-411.	1.5	4
34	ENTRAPPED AIR INFLUENCE IN HYDRAULIC TRANSIENTS. , 2019, , .		2
35	Ball Valve Behavior under Steady and Unsteady Conditions. Journal of Hydraulic Engineering, 2018, 144, .	1.5	25
36	Efficient Computational Fluid Dynamics Model for Transient Laminar Flow Modeling: Pressure Wave Propagation and Velocity Profile Changes. Journal of Fluids Engineering, Transactions of the ASME, 2018, 140, .	1.5	22

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37	Estimating capital costs of wastewater treatment plants at the strategical level. Urban Water Journal, 2018, 15, 732-740.	2.1	12
38	One-Dimensional Fluidâ€"Structure Interaction Models in Pressurized Fluid-Filled Pipes: A Review. Applied Sciences (Switzerland), 2018, 8, 1844.	2.5	25
39	Top-Down and Bottom-Up Approaches for Water-Energy Balance in Portuguese Supply Systems. Water (Switzerland), 2018, 10, 577.	2.7	24
40	Improved Assessment of Energy Recovery Potential in Water Supply Systems with High Demand Variation. Water (Switzerland), 2018, 10, 773.	2.7	15
41	Efficiency assessment of household water use. Urban Water Journal, 2018, 15, 407-417.	2.1	14
42	Including auditory tube function on models is relevant to assess water exposure after tympanostomy tubesâ€"Multiphase computerized fluid dynamics model. International Journal of Pediatric Otorhinolaryngology, 2018, 111, 187-191.	1.0	6
43	Maximum transient pressures in a rapidly filling pipeline with entrapped air using a CFD model. Journal of Hydraulic Research/De Recherches Hydrauliques, 2017, 55, 506-519.	1.7	36
44	Transient vaporous cavitation in a horizontal copper pipe. Journal of Hydraulic Research/De Recherches Hydrauliques, 2017, 55, 731-736.	1.7	15
45	Fluid-structure interaction in straight pipelines with different anchoring conditions. Journal of Sound and Vibration, 2017, 394, 348-365.	3.9	38
46	Fluidâ€"structure interaction in pipe coils during hydraulic transients. Journal of Hydraulic Research/De Recherches Hydrauliques, 2017, 55, 491-505.	1.7	9
47	A comprehensive and well tested energy balance for water supply systems. Urban Water Journal, 2017, 14, 853-861.	2.1	36
48	Integrating water temperature in chlorine decay modelling: a case study. Urban Water Journal, 2017, 14, 1097-1101.	2.1	23
49	CFD and 1D Approaches for the Unsteady Friction Analysis of Low Reynolds Number Turbulent Flows. Journal of Hydraulic Engineering, 2017, 143, .	1.5	35
50	Experimental Study of the Transient Flow in a Coiled Pipe Using PIV. Journal of Hydraulic Engineering, 2017, 143, .	1.5	6
51	Assessment of household water use efficiency using performance indices. Resources, Conservation and Recycling, 2017, 116, 94-106.	10.8	35
52	Assessment of Current Models Ability to Describe Chlorine Decay and Appraisal of Water Spectroscopic Data as Model Inputs. Journal of Environmental Engineering, ASCE, 2017, 143, 04016071.	1.4	5
53	HYDRAULIC TRANSIENT EXPERIMENTAL STUDY IN A COPPER PIPE. , 2017, , .		1
54	Assessing human resources renovation needs in water utilities. Water Practice and Technology, 2016, 11, 728-735.	2.0	4

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55	Modeling the effect of weather conditions on urban water demand in multiple network areas: a practical approach to improve monthly and seasonal operation. Journal of Water Supply: Research and Technology - AQUA, 2016, 65, 612-625.	1.4	4
56	Infrastructure asset management â€" the TRUST approach and professional tools. Water Science and Technology: Water Supply, 2016, 16, 1122-1131.	2.1	5
57	Experimental distinction of damping mechanisms during hydraulic transients in pipe flow. Journal of Fluids and Structures, 2016, 66, 424-446.	3.4	18
58	Fluid-structure interaction in straight pipelines: Friction coupling mechanisms. Computers and Structures, 2016, 175, 74-90.	4.4	23
59	A Comprehensive Approach for Spatial and Temporal Water Demand Profiling to Improve Management in Network Areas. Water Resources Management, 2016, 30, 3443-3457.	3.9	10
60	Uncertainties of inverse transient modelling with unsteady friction and pipe-wall viscoelasticity. Journal of Water Supply: Research and Technology - AQUA, 2016, 65, 342-353.	1.4	4
61	Moving urban water infrastructure asset management from science into practice. Urban Water Journal, 2016, 13, 133-141.	2.1	11
62	CFD modeling of transient flow in pressurized pipes. Computers and Fluids, 2016, 126, 129-140.	2.5	68
63	Estimating Water Supply Infrastructure Cost Using Regression Techniques. Journal of Water Resources Planning and Management - ASCE, 2016, 142, 04016003.	2.6	28
64	Management tools for hydro energy interventions in water supply systems. Water Practice and Technology, 2015, 10, 214-228.	2.0	6
65	Novel Performance Assessment Indices for Domestic Water Use. Procedia Engineering, 2015, 119, 813-819.	1.2	7
66	Modelling chlorine residual decay as influenced by temperature. Water and Environment Journal, 2015, 29, 331-337.	2.2	21
67	Investigation of Transient Vaporous Cavitation: Experimental and Numerical Analyses. Procedia Engineering, 2015, 119, 235-242.	1.2	24
68	Assessment of Water use Efficiency in the Household Using Cluster Analysis. Procedia Engineering, 2015, 119, 820-827.	1.2	5
69	Water Supply Infrastructure Cost Modelling. Procedia Engineering, 2015, 119, 168-173.	1.2	11
70	Energy Auditing as a Tool for Outlining Major Inefficiencies: Results from a Real Water Supply System. Procedia Engineering, 2015, 119, 1098-1108.	1.2	14
71	Modelling Sewer Systems Costs with Multiple Linear Regression. Water Resources Management, 2014, 28, 4415-4431.	3.9	24
72	Energy Auditing as a Tool for Improving Service Efficiency of Water Supply Systems. Procedia Engineering, 2014, 89, 557-564.	1.2	15

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73	Stressâ€"strain analysis of a toric pipe for inner pressure loads. Journal of Fluids and Structures, 2014, 51, 68-84.	3.4	10
74	How to assess the effectiveness of energy management processes in water supply systems. Journal of Water Supply: Research and Technology - AQUA, 2014, 63, 342-349.	1.4	12
75	Multi-criteria Analysis for the Selection of the Best Energy Efficient Option in Urban Water Systems. Procedia Engineering, 2014, 70, 292-301.	1.2	12
76	Velocity-distribution in pressurized pipe flow using CFD: Accuracy and mesh analysis. Computers and Fluids, 2014, 105, 218-230.	2.5	43
77	Energy efficiency in water distribution systems â€" a path to an ideal network: AGS experience. Water Science and Technology: Water Supply, 2014, 14, 708-716.	2.1	5
78	Creep functions for transients in HDPE pipes. Urban Water Journal, 2014, 11, 160-166.	2.1	23
79	Uncertainties in Hydraulic Transient Modelling in Raising Pipe Systems: Laboratory Case Studies. Procedia Engineering, 2014, 70, 487-496.	1.2	5
80	Spatial and Temporal Forecasting of Water Consumption at the DMA Level Using Extensive Measurements. Procedia Engineering, 2014, 70, 1063-1073.	1.2	16
81	Modeling of Chlorine Decay in Drinking Water Supply Systems Using EPANET MSX. Procedia Engineering, 2014, 70, 1192-1200.	1.2	56
82	PIV Characterization of Transient Flow in Pipe Coils. Procedia Engineering, 2014, 89, 1358-1365.	1.2	7
83	Water Demand Projection in Distribution Systems Using a Novel Scenario Planning Approach. Procedia Engineering, 2014, 89, 950-957.	1.2	2
84	Pumped-Storage Solution towards Energy Efficiency and Sustainability: Portugal Contribution and Real Case Studies. Journal of Water Resource and Protection, 2014, 06, 1099-1111.	0.8	12
85	Regimes transitÃ³rios em sistemas elevatÃ³rios com perfis horizontais. Revista Recursos HÃdricos, 2014, 35, 55-66.	0.1	0
86	Damping Analysis of Hydraulic Transients in Pump-Rising Main Systems. Journal of Hydraulic Engineering, 2013, 139, 233-243.	1.5	19
87	A utility-tailored methodology for integrated asset management of urban water infrastructure. Water Science and Technology: Water Supply, 2013, 13, 1444-1451.	2.1	18
88	Urban water infrastructure asset management â€" a structured approach in four water utilities. Water Science and Technology, 2012, 66, 2702-2711.	2.5	33
89	Prioritization of rehabilitation interventions for urban water assets using multiple criteria decision-aid methods. Water Science and Technology, 2012, 66, 1007-1014.	2.5	32
90	Transient vaporous cavitation in viscoelastic pipes. Journal of Hydraulic Research/De Recherches Hydrauliques, 2012, 50, 228-235.	1.7	35

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91	Direct backward transient analysis for leak detection in pressurized pipelines: from theory to real application. Journal of Water Supply: Research and Technology - AQUA, 2012, 61, 189-200.	1.4	32
92	Leak detection by inverse transient analysis in an experimental PVC pipe system. Journal of Hydroinformatics, 2011, 13, 153-166.	2.4	74
93	Evaluation of Chlorine Decay in Drinking Water Systems for Different Flow Conditions: From Theory to Practice. Water Resources Management, 2010, 24, 815-834.	3.9	27
94	Closure to â€œAnalysis of PVC Pipe-Wall Viscoelasticity during Water Hammerâ€•by A. K. Soares, D. I. C. Covas, and L. F. R. Reis. Journal of Hydraulic Engineering, 2010, 136, 548-550.	1.5	0
95	Case Studies of Leak Detection and Location in Water Pipe Systems by Inverse Transient Analysis. Journal of Water Resources Planning and Management - ASCE, 2010, 136, 248-257.	2.6	175
96	Unsteady Flow with Cavitation in Viscoelastic Pipes. International Journal of Fluid Machinery and Systems, 2009, 2, 269-277.	0.2	18
97	Water Supply System Performance for Different Pipe Materials Part II: Sensitivity Analysis to Pressure Variation. Water Resources Management, 2009, 23, 367-393.	3.9	17
98	Lessons for the calibration of hydraulic transient simulators. , 2009, , 211-214.		0
99	Analysis of transient vaporous cavitation in polyethylene pipes. , 2009, , 307-310.		0
100	Effects of the pipe-wall rheological behaviour on hydraulic transient pressures. , 2009, , 57-60.		0
101	Water Supply System Performance for Different Pipe Materials Part I: Water Quality Analysis. Water Resources Management, 2008, 22, 1579-1607.	3.9	35
102	Analysis of PVC Pipe-Wall Viscoelasticity during Water Hammer. Journal of Hydraulic Engineering, 2008, 134, 1389-1394.	1.5	102
103	Water Pipe System Diagnosis by Transient Pressure Signals. , 2008, , .		4
104	Profiling Residential Water Consumption. , 2008, , .		4
105	Parameters affecting water-hammer wave attenuation, shape and timingâ€"Part 2: Case studies. Journal of Hydraulic Research/De Recherches Hydrauliques, 2008, 46, 382-391.	1.7	64
106	Parameters affecting water-hammer wave attenuation, shape and timingâ€"Part 1: Mathematical tools. Journal of Hydraulic Research/De Recherches Hydrauliques, 2008, 46, 373-381.	1.7	99
107	Bottom-Up Analysis for Assessing Water Losses: A Case Study. , 2008, , .		1
108	Closure to â€œStanding Wave Difference Method for Leak Detection in Pipeline Systemsâ€•by DÃdia I. C. Covas, Helena M. Ramos, and AntÃ³nio BetÃ¢mio de Almeida. Journal of Hydraulic Engineering, 2008, 134, 1029-1033.	1.5	3

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109	Water Infrastructure Asset Management: A Methodology to Define Investment Prioritization. , 2008, , .		2
110	Water losses' assessment in an urban water network. Water Practice and Technology, 2008, 3, .	2.0	15
111	Solution for the Closed-Loop Problem in Pressurized Multipipe Systems. Journal of Hydraulic Engineering, 2007, 133, 937-948.	1.5	0
112	Water pipe system response under dynamic effects. Journal of Water Supply: Research and Technology - AQUA, 2006, 55, 269-282.	1.4	8
113	Metodologia de apoio ao diagnÃ³stico para amelhoria do desempenho de sistemas de distribuiÃ§ao de Ã¡gua. IngenierÃa Del Agua, 2006, 13, 243.	0.4	0
114	Standing Wave Difference Method for Leak Detection in Pipeline Systems. Journal of Hydraulic Engineering, 2005, 131, 1106-1116.	1.5	165
115	The dynamic effect of pipe-wall viscoelasticity in hydraulic transients. Part IIâ€"model development, calibration and verification. Journal of Hydraulic Research/De Recherches Hydrauliques, 2005, 43, 56-70.	1.7	208
116	Application of hydraulic transients for leak detection in water supply systems. Water Science and Technology: Water Supply, 2004, 4, 365-374.	2.1	33
117	Detecting leaks in pressurised pipes by means of transients. Journal of Hydraulic Research/De Recherches Hydrauliques, 2004, 42, 105-109.	1.7	35
118	Water hammer in pressurized polyethylene pipes: conceptual model and experimental analysis. Urban Water Journal, 2004, 1, 177-197.	2.1	67
119	The dynamic effect of pipe-wall viscoelasticity in hydraulic transients. Part Iâ€"experimental analysis and creep characterization. Journal of Hydraulic Research/De Recherches Hydrauliques, 2004, 42, 517-532.	1.7	164
120	Surge damping analysis in pipe systems: modelling and experiments. Journal of Hydraulic Research/De Recherches Hydrauliques, 2004, 42, 413-425.	1.7	125
121	Surge damping analysis in pipe systems: modelling and experiments. Journal of Hydraulic Research/De Recherches Hydrauliques, 2004, 42, 413-425.	1.7	49