Avi A Ostfeld

List of Publications by Year in descending order

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251 papers 7,265 citations

66343 42 h-index 79 g-index

255 all docs

255 docs citations

255 times ranked 4501 citing authors

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| 1 | State of the Art for Genetic Algorithms and Beyond in Water Resources Planning and Management. Journal of Water Resources Planning and Management - ASCE, 2010, 136, 412-432. | 2.6 | 490 |
| 2 | Evolutionary algorithms and other metaheuristics in water resources: Current status, research challenges and future directions. Environmental Modelling and Software, 2014, 62, 271-299. | 4.5 | 477 |
| 3 | Data-driven modelling: some past experiences and new approaches. Journal of Hydroinformatics, 2008, 10, 3-22. | 2.4 | 471 |
| 4 | The Battle of the Water Sensor Networks (BWSN): A Design Challenge for Engineers and Algorithms. Journal of Water Resources Planning and Management - ASCE, 2008, 134, 556-568. | 2.6 | 464 |
| 5 | Optimal Layout of Early Warning Detection Stations for Water Distribution Systems Security. Journal of Water Resources Planning and Management - ASCE, 2004, 130, 377-385. | 2.6 | 288 |
| 6 | Detecting Accidental Contaminations in Municipal Water Networks. Journal of Water Resources Planning and Management - ASCE, 1998, 124, 192-198. | 2.6 | 220 |
| 7 | The future of water resources systems analysis: Toward a scientific framework for sustainable water management. Water Resources Research, 2015, 51, 6110-6124. | 4.2 | 214 |
| 8 | Topological clustering for water distribution systems analysis. Environmental Modelling and Software, 2011, 26, 969-972. | 4.5 | 145 |
| 9 | Battle of the Water Calibration Networks. Journal of Water Resources Planning and Management - ASCE, 2012, 138, 523-532. | 2.6 | 134 |
| 10 | Characterizing Cyber-Physical Attacks on Water Distribution Systems. Journal of Water Resources Planning and Management - ASCE, 2017, 143, . | 2.6 | 130 |
| 11 | Battle of the Attack Detection Algorithms: Disclosing Cyber Attacks on Water Distribution Networks. Journal of Water Resources Planning and Management - ASCE, 2018, 144, . | 2.6 | 127 |
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| 13 | Contamination Source Identification in Water Systems: A Hybrid Model Trees–Linear Programming Scheme. Journal of Water Resources Planning and Management - ASCE, 2006, 132, 263-273. | 2.6 | 101 |
| 14 | Multi-objective optimization of water quality, pumps operation, and storage sizing of water distribution systems. Journal of Environmental Management, 2013, 115, 189-197. | 7.8 | 100 |
| 15 | Multiobjective Contaminant Sensor Network Design for Water Distribution Systems. Journal of Water Resources Planning and Management - ASCE, 2008, 134, 366-377. | 2.6 | 98 |
| 16 | A Review of Cybersecurity Incidents in the Water Sector. Journal of Environmental Engineering, ASCE, 2020, 146, . | 1.4 | 98 |
| 17 | Battle of the Water Networks II. Journal of Water Resources Planning and Management - ASCE, 2014, 140, . | 2.6 | 92 |
| 18 | Ant Colony Optimization for Least-Cost Design and Operation of Pumping Water Distribution Systems. Journal of Water Resources Planning and Management - ASCE, 2008, 134, 107-118. | 2.6 | 91 |

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| 19 | A dynamic thresholds scheme for contaminant event detection in water distribution systems. Water Research, 2013, 47, 1899-1908. | 11.3 | 89 |
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| 21 | Genetic algorithm for contaminant source characterization using imperfect sensors. Civil Engineering and Environmental Systems, 2008, 25, 29-39. | 0.9 | 73 |
| 22 | Design of Optimal Reliable Multiquality Water-Supply Systems. Journal of Water Resources Planning and Management - ASCE, 1996, 122, 322-333. | 2.6 | 69 |
| 23 | Conjunctive optimal scheduling of pumping and booster chlorine injections in water distribution systems. Engineering Optimization, 2006, 38, 337-352. | 2.6 | 61 |
| 24 | An adaptive heuristic cross-entropy algorithm for optimal design of water distribution systems. Engineering Optimization, 2007, 39, 413-428. | 2.6 | 61 |
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| 26 | Detecting Accidental Contaminations in Municipal Water Networks. Journal of Water Resources Planning and Management - ASCE, 1999, 125, 308-310. | 2.6 | 57 |
| 27 | A hybrid genetic—instance based learning algorithm for CE-QUAL-W2 calibration. Journal of Hydrology, 2005, 310, 122-142. | 5.4 | 57 |
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| 29 | Reliability analysis of water distribution systems. Journal of Hydroinformatics, 2004, 6, 281-294. | 2.4 | 55 |
| 30 | Efficient Hydraulic State Estimation Technique Using Reduced Models of Urban Water Networks. Journal of Water Resources Planning and Management - ASCE, 2011, 137, 343-351. | 2.6 | 54 |
| 31 | A contamination source identification model for water distribution system security. Engineering Optimization, 2007, 39, 941-947. | 2.6 | 50 |
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| 35 | A coupled model tree–genetic algorithm scheme for flow and water quality predictions in watersheds. Journal of Hydrology, 2008, 349, 364-375. | 5.4 | 48 |
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| 37 | Operation of remote mobile sensors for security of drinking water distribution systems. Water Research, 2013, 47, 4217-4226. | 11.3 | 48 |
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| 42 | A coupled classification â€" Evolutionary optimization model for contamination event detection in water distribution systems. Water Research, 2014, 51, 234-245. | 11.3 | 45 |
| 43 | A hybrid evolutionary data driven model for river water quality early warning. Journal of Environmental Management, 2014, 143, 8-16. | 7.8 | 45 |
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| 46 | Mobile sensor networks for optimal leak and backflow detection and localization in municipal water networks. Environmental Modelling and Software, 2016, 80, 306-321. | 4.5 | 43 |
| 47 | Multi-objective evolutionary optimization for greywater reuse in municipal sewer systems. Water Research, 2013, 47, 5911-5920. | 11.3 | 42 |
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| 49 | Robust optimization for water distribution systems least cost design. Water Resources Research, 2013, 49, 6795-6809. | 4.2 | 41 |
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| 54 | Water quality modeling in sewer networks: Review and future research directions. Water Research, 2021, 202, 117419. | 11.3 | 35 |

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| 55 | Optimal Operation of Multiquality Networks. II: Unsteady Conditions. Journal of Water Resources Planning and Management - ASCE, 1993, 119, 663-684. | 2.6 | 34 |
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| 59 | Optimal early warning monitoring system layout for water networks security: inclusion of sensors sensitivities and response delays. Civil Engineering and Environmental Systems, 2005, 22, 151-169. | 0.9 | 33 |
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| 70 | A versatile and low-cost open source pipetting robot for automation of toxicological and ecotoxicological bioassays. PLoS ONE, 2017, 12, e0179636. | 2.5 | 23 |
| 71 | Optimal multiyear management of a water supply system under uncertainty: Robust counterpart approach. Water Resources Research, 2011, 47, . | 4.2 | 22 |
| 72 | Locating Monitors in Water Distribution Systems: Red Team–Blue Team Exercise. Journal of Water Resources Planning and Management - ASCE, 2006, 132, 300-304. | 2.6 | 21 |

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| 97 | Climate change impacts on river basin and freshwater ecosystems: some observations on challenges and emerging solutions. Journal of Water and Climate Change, 2012, 3, 171-184. | 2.9 | 14 |
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