Matthew W Farthing

List of Publications by Year
in descending order

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35	1,113	471509 17	414414 32
papers	citations	h-index	g-index

36	36	36	1171
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical Solution of Richards' Equation: A Review of Advances and Challenges. Soil Science Society of America Journal, 2017, 81, 1257-1269.	2.2	194
2	Evaluation of individual and ensemble probabilistic forecasts of COVID-19 mortality in the United States. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2113561119.	7.1	136
3	A spatially and temporally adaptive solution of Richardsâ€™ equation. Advances in Water Resources, 2006, 29, 525-545.	3.8	82
4	Numerical simulation of water resources problems: Models, methods, and trends. Advances in Water Resources, 2013, 51, 405-437.	3.8	73
5	A mixed-integer simulation-based optimization approach with surrogate functions in water resources management. Optimization and Engineering, 2008, 9, 341-360.	2.4	64
6	Mixed finite element methods and higher order temporal approximations for variably saturated groundwater flow. Advances in Water Resources, 2003, 26, 373-394.	3.8	53
7	Efficient steady-state solution techniques for variably saturated groundwater flow. Advances in Water Resources, 2003, 26, 833-849.	3.8	36
8	A comparison of high-resolution, finite-volume, adaptiveâ€“stencil schemes for simulating advectiveâ€“dispersive transport. Advances in Water Resources, 2000, 24, 29-48.	3.8	29
9	Mixed finite element methods and higher-order temporal approximations. Advances in Water Resources, 2002, 25, 85-101.	3.8	29
10	Modeling NAPL dissolution fingering with upscaled mass transfer rate coefficients. Advances in Water Resources, 2003, 26, 1097-1111.	3.8	25
11	The influence of wettability on NAPL dissolution fingering. Advances in Water Resources, 2008, 31, 1687-1696.	3.8	25
12	Numerical modeling of drag for flow through vegetated domains and porous structures. Advances in Water Resources, 2012, 39, 44-59.	3.8	25
13	Working with, not against recreational anglers: Evaluating a pro-environmental behavioural strategy for improving catch-and-release behaviour. Fisheries Research, 2018, 206, 44-56.	1.7	25
14	Solution of a Well-Field Design Problem with Implicit Filtering. Optimization and Engineering, 2004, 5, 207-234.	2.4	22
15	An immersed structure approach for fluid-vegetation interaction. Advances in Water Resources, 2015, 80, 1-16.	3.8	22
16	Relative importance of geometrical and intrinsic water transport properties of active layers in the water permeability of polyamide thin-film composite membranes. Journal of Membrane Science, 2018, 564, 935-944.	8.2	21
17	Limitations of the random response technique and a call to implement the ballot box method for estimating recreational angler compliance using surveys. Fisheries Research, 2018, 208, 34-41.	1.7	21
18	Adaptive split-operator methods for modeling transport phenomena in porous medium systems. Advances in Water Resources, 2011, 34, 1268-1282.	3.8	18

#	Article	IF	Citations
19	Bathymetric Inversion and Uncertainty Estimation from Synthetic Surf-Zone Imagery with Machine Learning. Remote Sensing, 2020, 12, 3364.	4.0	18
20	Well-Balanced Second-Order Finite Element Approximation of the Shallow Water Equations with Friction. SIAM Journal of Scientific Computing, 2018, 40, A3873-A3901.	2.8	17
21	Application of deep learning to large scale riverine flow velocity estimation. Stochastic Environmental Research and Risk Assessment, 2021, 35, 1069-1088.	4.0	16
22	An ELLAM approximation for advectiveâ€“dispersive transport with nonlinear sorption. Advances in Water Resources, 2006, 29, 657-675.	3.8	15
23	POD-based model reduction for stabilized finite element approximations of shallow water flows. Journal of Computational and Applied Mathematics, 2016, 302, 50-70.	2.0	14
24	Riverine Bathymetry Imaging With Indirect Observations. Water Resources Research, 2018, 54, 3704-3727.	4.2	14
25	Intrinsic finite element method for advection-diffusion-reaction equations on surfaces. Journal of Computational Physics, 2021, 424, 109827.	3.8	13
26	A greedy non-intrusive reduced order model for shallow water equations. Journal of Computational Physics, 2021, 439, 110378.	3.8	13
27	Deep learning technique for fast inference of large-scale riverine bathymetry. Advances in Water Resources, 2021, 147, 103715.	3.8	12
28	Evaluation of Galerkin and Petrovâ€“Galerkin model reduction for finite element approximations of the shallow water equations. Computer Methods in Applied Mechanics and Engineering, 2017, 318, 537-571.	6.6	9
29	Genetic analysis provides insights into species distribution and population structure in East Atlantic horse mackerel (Trachurus trachurus and T. capensis). Journal of Fish Biology, 2020, 96, 795-805.	1.6	8
30	Development of a Fully Convolutional Neural Network to Derive Surf-Zone Bathymetry from Close-Range Imagery of Waves in Duck, NC. Remote Sensing, 2021, 13, 4907.	4.0	8
31	Novel Data Assimilation Algorithm for Nearshore Bathymetry. Journal of Atmospheric and Oceanic Technology, 2019, 36, 699-715.	1.3	7
32	Mathematical description of the uptake of hydrocarbons in jet fuel into the stratum corneum of human volunteers. Toxicology Letters, 2008, 178, 146-151.	0.8	5
33	pyNIROMâ€”A suite of python modules for non-intrusive reduced order modeling of time-dependent problems. Software Impacts, 2021, 10, 100129.	1.4	4
34	Reduced Order Modeling Using Advection-Aware Autoencoders. Mathematical and Computational Applications, 2022, 27, 34.	1.3	4
35	Editorial: Computational challenges in the solution of water resources problems. Advances in Water Resources, 2011, 34, 1059-1061.	3.8	1