Abdolmajid Mohammadian

List of Publications by Year
in descending order

129	1,708	361045	377514
papers	citations	20 h-index	34 g-index

134	134	134	1365
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Combined impacts of future climate and land use changes on discharge, nitrogen and phosphorus loads for a Canadian river basin. Journal of Environmental Management, 2015, 151, 76-86.	3.8	148
2	A comparison of standard kâ€“Îµ and realizable kâ€“Îµ turbulence models in curved and confluent channels. Environmental Fluid Mechanics, 2019, 19, 543-568.	0.7	115
3	Novel methodology for facile fabrication of nanofiltration membranes based on nucleophilic nature of polydopamine. Journal of Membrane Science, 2016, 511, 65-75.	4.1	61
4	Uncertainty analysis of intelligent model of hybrid genetic algorithm and particle swarm optimization with ANFIS to predict threshold bank profile shape based on digital laser approach sensing. Measurement: Journal of the International Measurement Confederation, 2018, 121, 294-303.	2.5	58
5	Fabrication of high flux nanofiltration membrane via hydrogen bonding based co-deposition of polydopamine with poly(vinyl alcohol). Journal of Membrane Science, 2018, 552, 222-233.	4.1	53
6	Numerical modeling of $$30^{circ }$$ 30 â˜ and $$45{^circ }$$ 45 â˜ inclined dense turbulent jets in stationary ambient. Environmental Fluid Mechanics, 2015, 15, 537-562.	0.7	51
7	Biosorption of Pb and Cu using fixed and suspended bacteria. Journal of Environmental Chemical Engineering, 2014, 2, 1663-1671.	3.3	43
8	Numerical Modeling of Turbulent Buoyant Wall Jets in Stationary Ambient Water. Journal of Hydraulic Engineering, 2014, 140, .	0.7	38
9	CFD modeling and analysis of the behavior of 30Â° and 45Â° inclined dense jets â€“ new numerical insights. Journal of Applied Water Engineering and Research, 2016, 4, 112-127.	1.0	33
10	Predicting stable alluvial channel profiles using emotional artificial neural networks. Applied Soft Computing Journal, 2019, 78, 420-437.	4.1	33
11	Why many theories of shock waves are necessary: Kinetic functions, equivalent equations, and fourth-order models. Journal of Computational Physics, 2008, 227, 4162-4189.	1.9	31
12	Well-balanced positivity preserving cell-vertex central-upwind scheme for shallow water flows. Computers and Fluids, 2016, 136, 193-206.	1.3	30
13	Numerical Modeling of Vertical Buoyant Jets Subjected to Lateral Confinement. Journal of Hydraulic Engineering, 2017, 143, .	0.7	29
14	A well-balanced positivity-preserving central-upwind scheme for shallow water equations on unstructured quadrilateral grids. Computers and Fluids, 2016, 126, 25-40.	1.3	27
15	Simulation of shallow flows over variable topographies using unstructured grids. International Journal for Numerical Methods in Fluids, 2006, 52, 473-498.	0.9	26
16	Well-balanced central-upwind scheme for a fully coupled shallow water system modeling flows over erodible bed. Journal of Computational Physics, 2015, 300, 202-218.	1.9	25
17	A mass conservative scheme for simulating shallow flows over variable topographies using unstructured grid. Advances in Water Resources, 2005, 28, 523-539.	1.7	24
18	A transient natural convection heat transfer model for geothermal borehole heat exchangers. Journal of Renewable and Sustainable Energy, 2013, 5, .	0.8	24

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19	A three-dimensional numerical study of flow characteristics in strongly curved channel bends with different side slopes. Environmental Fluid Mechanics, 2020, 20, 1491-1510.	0.7	23
20	Modeling spatial distribution of flow depth in fluvial systems using a hybrid two-dimensional hydraulic-multigene genetic programming approach. Journal of Hydrology, 2021, 600, 126517.	2.3	23
21	Three-Dimensional Numerical Simulations of Buoyant Jets Discharged from a Rosette-Type Multiport Diffuser. Journal of Marine Science and Engineering, 2019, 7, 409.	1.2	20
22	Three-Dimensional Numerical Study of Multiple Vertical Buoyant Jets in Stationary Ambient Water. Journal of Hydraulic Engineering, 2020, 146, 04020049.	0.7	20
23	Multigene Genetic-Programming-Based Models for Initial Dilution of Laterally Confined Vertical Buoyant Jets. Journal of Marine Science and Engineering, 2019, 7, 246.	1.2	19
24	Numerical simulation of flow over ogee crested spillways under high hydraulic head ratio. Engineering Applications of Computational Fluid Mechanics, 2019, 13, 983-1000.	1.5	19
25	Numerical modeling of local scour due to submerged wall jets using a strict vertex-based, terrain conformal, moving-mesh technique in OpenFOAM. International Journal of Sediment Research, 2020, 35, 237-248.	1.8	19
26	Moist multi-scale models for the hurricane embryo. Journal of Fluid Mechanics, 2010, 657, 478-501.	1.4	18
27	Numerical investigation of tsunami bore effects on structures, part I: drag coefficients. Natural Hazards, 2019, 96, 285-309.	1.6	18
28	Forecasting daily reference evapotranspiration for Canada using the Penmanâ€“Monteith model and statistically downscaled global climate model projections. AEJ - Alexandria Engineering Journal, 2020, 59, 883-891.	3.4	18
29	CFD Modeling of Effluent Discharges: A Review of Past Numerical Studies. Water (Switzerland), 2020, 12, 856.	1.2	18
30	High-order low-dissipation low-dispersion diagonally implicit Rungeâ€“Kutta schemes. Journal of Computational Physics, 2015, 286, 38-48.	1.9	17
31	Assessment of geomorphological bank evolution of the alluvial threshold rivers based on entropy concept parameters. Hydrological Sciences Journal, 2019, 64, 856-872.	1.2	17
32	A conservative extension of the method of characteristics for 1-D shallow flows. Applied Mathematical Modelling, 2007, 31, 332-348.	2.2	16
33	Numerical investigation of the influence of extreme hydrodynamic forces on the geometry of structures using OpenFOAM. Natural Hazards, 2017, 87, 213-235.	1.6	16
34	Large eddy simulation of extreme hydrodynamic forces on structures with mitigation walls using OpenFOAM. Natural Hazards, 2017, 85, 1689-1707.	1.6	16
35	Numerical Modeling of Multiple Inclined Dense Jets Discharged from Moderately Spaced Ports. Water (Switzerland), 2019, 11, 2077.	1.2	16
36	A method based on the Tsallis entropy for characterizing threshold channel bank profiles. Physica A: Statistical Mechanics and Its Applications, 2019, 526, 121089.	1.2	15

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37	A Review of Numerical Simulations of Secondary Flows in River Bends. Water (Switzerland), 2021, 13, 884.	1.2	15
38	Vertically sheared horizontal flow with mass sources: a canonical balanced model. Geophysical and Astrophysical Fluid Dynamics, 2008, 102, 543-591.	0.4	14
39	Buoyant Jets in Cross-Flows: Review, Developments, and Applications. Journal of Marine Science and Engineering, 2021, 9, 61.	1.2	14
40	Fourier analysis of a class of upwind schemes in shallow water systems for gravity and Rossby waves. International Journal for Numerical Methods in Fluids, 2008, 57, 389-416.	0.9	13
41	Evolutionary Modeling of Inclined Dense Jets Discharged from Multiport Diffusers. Journal of Coastal Research, 2019, 36, 362.	0.1	13
42	Lagrangian Modeling of Marine Microplastics Fate and Transport: The State of the Science. Journal of Marine Science and Engineering, 2022, 10, 481.	1.2	13
43	Projection of Significant Wave Height in a Coastal Area under RCPs Climate Change Scenarios. Natural Hazards Review, 2016, 17, 04015016.	0.8	12
44	Energy-Based Approaches in Estimating Actual Evapotranspiration Focusing on Land Surface Temperature: A Review of Methods, Concepts, and Challenges. Energies, 2022, 15, 1264.	1.6	12
45	Numerical modeling of thawing in frozen rocks of underground mines caused by backfilling. International Journal of Rock Mechanics and Minings Sciences, 2011, 48, 1068-1076.	2.6	11
46	Optimal high-order diagonally-implicit Rungeâ€“Kutta schemes for nonlinear diffusive systems on atmospheric boundary layer. Journal of Computational Physics, 2014, 271, 118-130.	1.9	11
47	An Optimally Stable and Accurate Secondâ€Order SSP Rungeâ€Kutta IMEX Scheme for Atmospheric Applications. Journal of Advances in Modeling Earth Systems, 2018, 10, 18-42.	1.3	11
48	Trajectory of a jet in crossflow in a channel bend. Environmental Fluid Mechanics, 2018, 18, 1301-1319.	0.7	11
49	Numerical modeling of local scour at a submerged weir with a downstream slope using a coupled moving-mesh and masked-element approach. International Journal of Sediment Research, 2021, 36, 279-290.	1.8	11
50	A simple and robust method for identifying the distribution functions of Manningâ€™s roughness coefficient along a natural river. Journal of Hydrology, 2021, 595, 125680.	2.3	11
51	Experimental and numerical study of flow over a broad-crested weir under different hydraulic head ratios. Flow Measurement and Instrumentation, 2021, 80, 102004.	1.0	11
52	Numerical and Experimental Investigation of Rectangular Liquid-Containing Structures under Seismic Excitation. Infrastructures, 2021, 6, 1.	1.4	11
53	Experimental and numerical study of the characteristics of thermal and nonthermal offset buoyant jets discharged into stagnant water. , 0, 141, 171-186.		11
54	A coupled two-dimensional numerical model for rapidly varying flow, sediment transport and bed morphology. Journal of Hydraulic Research/De Recherches Hydrauliques, 2015, 53, 609-621.	0.7	10

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55	Efficient Method for Coupling Field Data and Numerical Modeling for the Estimation of Transverse Mixing Coefficients in Meandering Rivers. Journal of Hydraulic Engineering, 2016, 142, .	0.7	10
56	Experimental Study on Extreme Hydrodynamic Loading on Pipelines Part 2: Induced Force Analysis. Journal of Marine Science and Engineering, 2019, 7, 262.	1.2	10
57	Estimating future daily pan evaporation for Qatar using the Hargreaves model and statistically downscaled global climate model projections under RCP climate change scenarios. Arabian Journal of Geosciences, 2020, 13, 1.	0.6	10
58	Numerical Modeling of Flow and Local Scour around Pipeline in Steady Currents Using Moving Mesh with Masked Elements. Journal of Hydraulic Engineering, 2020, 146, .	0.7	10
59	Spatial sensitivity analysis of COVID-19 infections concerning the satellite-based four air pollutants levels. International Journal of Environmental Science and Technology, 2021, 18, 751-760.	1.8	10
60	An unstructured finite volume method for large-scale shallow flows using the fourth-order Adams scheme. Computers and Fluids, 2013, 88, 579-589.	1.3	9
61	Numerical modeling of inclined plane jets in a linearly stratified environment. AEJ - Alexandria Engineering Journal, 2020, 59, 1857-1867.	3.4	9
62	Review and Comparison of Numerical Simulations of Secondary Flow in River Confluences. Water (Switzerland), 2021, 13, 1917.	1.2	9
63	Numerical simulation of rotation dominated linear shallow water flows using finite volume methods and fourth order Adams scheme. Computers and Fluids, 2012, 62, 64-70.	1.3	8
64	Theoretical and Numerical Analysis of a Class of Semi-Implicit Semi-Lagrangian Schemes Potentially Applicable to Atmospheric Models. Monthly Weather Review, 2014, 142, 4458-4476.	0.5	8
65	A robust coupled 2-D model for rapidly varying flows over erodible bed using central-upwind method with wetting and drying. Canadian Journal of Civil Engineering, 2015, 42, 530-543.	0.7	8
66	Numerical Modeling of Venturi Flume. Hydrology, 2021, 8, 27.	1.3	8
67	Inclined dense effluent discharge modelling in shallow waters. Environmental Fluid Mechanics, 2021, 21, 955-987.	0.7	8
68	Development of a time-varying MODIS/ 2D hydrodynamic model relationship between water levels and flooded areas in the Inner Niger Delta, Mali, West Africa. Journal of Hydrology: Regional Studies, 2020, 30, 100703.	1.0	8
69	Prediction of landâ€use conversions for use in watershedâ€scale hydrological modeling: a Canadian case study. Canadian Geographer / Geographie Canadien, 2014, 58, 499-516.	1.0	7
70	Experimental Study on Extreme Hydrodynamic Loading on Pipelines. Part 1: Flow Hydrodynamics. Journal of Marine Science and Engineering, 2019, 7, 251.	1.2	7
71	Improving the Accuracy of Hydrodynamic Simulations in Data Scarce Environments Using Bayesian Model Averaging: A Case Study of the Inner Niger Delta, Mali, West Africa. Water (Switzerland), 2019, 11, 1766.	1.2	7
72	An adaptive well-balanced positivity preserving central-upwind scheme on quadtree grids for shallow water equations. Computers and Fluids, 2020, 208, 104633.	1.3	7

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73	Effect of rating curve hysteresis on flood extent simulation with a 2D hydrodynamic model: A case study of the Inner Niger Delta, Mali, West Africa. Journal of African Earth Sciences, 2021, 178, 104187.	0.9	7
74	Evolutionary Prediction of the Trajectory of a Rosette Momentum Jet Group in Flowing Currents. Journal of Coastal Research, 2020, 36, 1059.	0.1	7
75	A â€œvortex in cellâ€•model for quasi-geostrophic, shallow water dynamics on the sphere. Ocean Modelling, 2010, 32, 132-142.	1.0	6
76	A study into extraction of geothermal energy from tailings ponds. International Journal of Mining, Reclamation and Environment, 2013, 27, 257-274.	1.2	6
77	Numerical investigation of tsunami bore effects on structures, part II: effects of bed condition on loading onto circular structures. Natural Hazards, 2019, 96, 331-351.	1.6	6
78	Experimental study of surface buoyant jets in crossflow. Environmental Fluid Mechanics, 2020, 20, 1007-1030.	0.7	6
79	Experimental Investigation and Model Development of Geometric Characteristics of Negatively Buoyant Jets Inclined at 15Â° and 52Â° using GMDH Method. Journal of Coastal Research, 2020, 36, 636.	0.1	6
80	In situ spatially distributed field measurements of transverse dispersion of a wastewater effluent in an extended natural meandering river. Journal of Hydraulic Research/De Recherches Hydrauliques, 2015, 53, 20-35.	0.7	5
81	Numerical modeling of submarine turbidity currents over erodible beds using unstructured grids. Ocean Modelling, 2017, 113, 157-170.	1.0	5
82	Three-dimensional shallow water system: A relaxation approach. Journal of Computational Physics, 2017, 333, 160-179.	1.9	5
83	Nature-Based Coastal Protection by Large Woody Debris as Compared to Seawalls: A Physical Model Study of Beach Morphology and Wave Reflection. Water (Switzerland), 2021, 13, 2020.	1.2	5
84	Evolutionary prediction of multiple vertical buoyant jets in stationary ambient water. , 0, 178, 41-52.		5
85	Simulations of the Concentration Fields of Rosette-Type Multiport Buoyant Discharges Using Combined CFD and Multigene Genetic Programming Techniques. Journal of Marine Science and Engineering, 2021, 9, 1311.	1.2	5
86	On the Prediction of Evaporation in Arid Climate Using Machine Learning Model. Mathematical and Computational Applications, 2022, 27, 32.	0.7	5
87	Application of the Chebyshev pseudospectral method to van der Waals fluids. Communications in Nonlinear Science and Numerical Simulation, 2012, 17, 3499-3507.	1.7	4
88	A stable and accurate scheme for nonlinear diffusion equations: Application to atmospheric boundary layer. Journal of Computational Physics, 2013, 236, 271-288.	1.9	4
89	Nitrification kinetics and modified model for the Rideau River, Canada. Water Quality Research Journal of Canada, 2013, 48, 192-201.	1.2	4
90	Extension of a well-balanced central upwind scheme for variable density shallow water flow equations on triangular grids. Computers and Fluids, 2017, 156, 441-448.	1.3	4

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91	Comparison of 2D triangular C-grid shallow water models. Computers and Fluids, 2018, 161, 136-154.	1.3	4
92	Enhanced formulation of the probability principle based on maximum entropy to design the bank profile of channels in geomorphic threshold. Stochastic Environmental Research and Risk Assessment, 2019, 33, 1013-1034.	1.9	4
93	Integrated finite strip flutter analysis of bridges. Computers and Structures, 2019, 212, 145-161.	2.4	4
94	Experimental Investigation of Loading due to Debris Dams on Structures. Journal of Hydraulic Engineering, 2020, 146, 04020029.	0.7	4
95	Analysis of triangular C-grid finite volume scheme for shallow water flows. Advances in Water Resources, 2015, 82, 176-195.	1.7	3
96	Threeâ€dimensional modeling of nonâ€hydrostatic freeâ€surface flows on unstructured grids. International Journal for Numerical Methods in Fluids, 2016, 82, 130-147.	0.9	3
97	A numerical model for three-dimensional shallow water flows with sharp gradients over mobile topography. Computers and Fluids, 2017, 154, 1-11.	1.3	3
98	Late-time asymptotic behavior of solutions to hyperbolic conservation laws on the sphere. Computer Methods in Applied Mechanics and Engineering, 2019, 349, 285-311.	3.4	3
99	Experimental Investigations of Hydraulic Surges Passing Over a Rectangular Canal. Journal of Earthquake and Tsunami, 2020, 14, 2040004.	0.7	3
100	Numerical modeling of dam-break flood flows for dry and wet sloped beds. ISH Journal of Hydraulic Engineering, 2023, 29, 259-269.	1.1	3
101	Conservative semi-implicit semi-Lagrangian scheme for simulation of shallow flows. Computer Physics Communications, 2006, 174, 99-108.	3.0	2
102	Numerical approximation of viscous terms in finite volume models for shallow waters. International Journal for Numerical Methods in Fluids, 2010, 63, 584-599.	0.9	2
103	Analytical and Chebyshev pseudospectral numerical solutions for a class of axisymmetric horizontal flows dominated by mass or heat sources. International Journal for Numerical Methods in Fluids, 2012, 70, 537-561.	0.9	2
104	An Efficient Framework for Multi-Objective Risk-Informed Decision Support Systems for Drainage Rehabilitation. Mathematical and Computational Applications, 2020, 25, 73.	0.7	2
105	Prediction of a rosette dense jet group in crossflow ambient conditions using multi-gene genetic programming. , 0, 190, 440-448.		2
106	Numerical Simulation of Flow in Parshall Flume Using Selected Nonlinear Turbulence Models. Hydrology, 2021, 8, 151.	1.3	2
107	Influence of Negatively Buoyant Jets on a Strongly Curved Open-Channel Flow Using RANS Models with Experimental Data. Water (Switzerland), 2022, 14, 347.	1.2	2
108	Application of Numerical and Experimental Modeling to Improve the Efficiency of Parshall Flumes: A Review of the State-of-the-Art. Hydrology, 2022, 9, 26.	1.3	2

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109	Applications of ANFIS-Type Methods in Simulation of Systems in Marine Environments. Mathematical and Computational Applications, 2022, 27, 29.	0.7	2
110	Numerical Simulation of Turbulent Flow in Bends and Confluences Considering Free Surface Changes Using the Volume of Fluid Method. Water (Switzerland), 2022, 14, 1307.	1.2	2
111	Numerical Study on the Effect of Port Orientation on Multiple Inclined Dense Jets. Journal of Marine Science and Engineering, 2022, 10, 590.	1.2	2
112	Tsunami-Induced Bore Propagating over a Canalâ€"Part 1: Laboratory Experiments and Numerical Validation. Fluids, 2022, 7, 213.	0.8	2
113	A Comprehensive Study of Artificial Intelligence Applications for Soil Temperature Prediction in Ordinary Climate Conditions and Extremely Hot Events. Sustainability, 2022, 14, 8065.	1.6	2
114	Existence and smoothness of continuous and discrete solutions of a two-dimensional shallow water problem over movable beds. Nonlinear Analysis: Theory, Methods & Applications, 2013, 76, 244-256.	0.6	1
115	Stability analysis of unstructured finite volume methods for linear shallow water flows using pseudospectra and singular value decomposition. Advances in Water Resources, 2016, 96, 127-144.	1.7	1
116	Prediction of Maximum Pressure at the Roofs of Rectangular Water Tanks Subjected to Harmonic Base Excitation Using the Multi-Gene Genetic Programming Method. Mathematical and Computational Applications, 2021, 26, 6.	0.7	1
117	Mixing of inclined dense jets: a numerical modeling. , 2021, , 343-367.		1
118	Evolutionary prediction of an inclined dense jet in shallow water. , 0, 155, 32-47.		1
119	Tsunami-Induced Bores Propagating over a Canal, Part II: Numerical Experiments Using the Standard k-Îµ Turbulence Model. Fluids, 2022, 7, 214.	0.8	1
120	Hydrodynamics and Associated Scour around a Free-Standing Structure Due to Turbulent Bores. Journal of Waterway, Port, Coastal and Ocean Engineering, 2022, 148, .	0.5	1
121	New analytical and CWENO numerical solutions for axisymmetric horizontal flows with heat sources. Applied Mathematical Modelling, 2012, 36, 2521-2535.	2.2	0
122	Existence and smoothness of continuous and discrete solutions of a two-dimensional shallow water problem over movable beds with nonlinear sediment transport relationship. Nonlinear Analysis: Real World Applications, 2013, 14, 246-263.	0.9	0
123	Closure to â€œA coupled two-dimensional numerical model for rapidly varying flow, sediment transport and bed morphologyâ€•by XIN LIU, JULIO ÃNGEL INFANTE SEDANO and ABDOLMAJID MOHAMMADIAN, J. Hydraulic Res. 53(5), 2015, 609â€“621. Journal of Hydraulic Research/De Recherches Hydrauliques, 2018, 56, 751-752.	0.7	0
124	An efficient semiâ€implicit temporal scheme for boundaryâ€layer vertical diffusion. Quarterly Journal of the Royal Meteorological Society, 2019, 145, 609-619.	1.0	0
125	On Dissipation and Dispersion Errors Optimization, A-Stability and SSP Properties. Communications in Computational Physics, 2018, 24, .	0.7	0
126	An adaptive centralâ€upwind scheme on quadtree grids for variable density shallow water equations. International Journal for Numerical Methods in Fluids, 0, , .	0.9	0

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127	Numerical simulation of a highly turbulent wall jet in a confined basin. ISH Journal of Hydraulic Engineering, 0, , 1-12.	1.1	0
128	Integrated Finite Strip Computation for Modelling and Frequency Analysis of Hybrid Laminated FRP Structures. Mathematical and Computational Applications, 2022, 27, 47.	0.7	0
129	Experimental Studies on the Influence of Negatively Buoyant Jets on Flow Distribution in a 135-Degree Open Channel Bend. Water (Switzerland), 2022, 14, 1898.	1.2	0