

# Behzad Ataie-Ashtiani

## List of Publications by Year in descending order

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135  
papers

5,975  
citations

71061

41  
h-index

79644

73  
g-index

142  
all docs

142  
docs citations

142  
times ranked

4584  
citing authors

#	ARTICLE	IF	CITATIONS
1	Seawater intrusion processes, investigation and management: Recent advances and future challenges. <i>Advances in Water Resources</i> , 2013, 51, 3-26.	1.7	1,046
2	Tidal effects on sea water intrusion in unconfined aquifers. <i>Journal of Hydrology</i> , 1999, 216, 17-31.	2.3	261
3	Sea-level rise impacts on seawater intrusion in coastal aquifers: Review and integration. <i>Journal of Hydrology</i> , 2016, 535, 235-255.	2.3	219
4	Experimental Investigation of Clear-Water Local Scour at Pile Groups. <i>Journal of Hydraulic Engineering</i> , 2006, 132, 1100-1104.	0.7	205
5	Numerical simulation of landslide impulsive waves by incompressible smoothed particle hydrodynamics. <i>International Journal for Numerical Methods in Fluids</i> , 2008, 56, 209-232.	0.9	162
6	Numerical modeling of subaerial and submarine landslide-generated tsunami waves—recent advances and future challenges. <i>Landslides</i> , 2016, 13, 1325-1368.	2.7	148
7	Nitrate reduction by nano-Fe/Cu particles in packed column. <i>Desalination</i> , 2011, 276, 214-221.	4.0	142
8	Estimation of current-induced scour depth around pile groups using neural network and adaptive neuro-fuzzy inference system. <i>Applied Soft Computing Journal</i> , 2009, 9, 746-755.	4.1	119
9	Impulsive waves caused by subaerial landslides. <i>Environmental Fluid Mechanics</i> , 2008, 8, 263-280.	0.7	113
10	Experimental Investigation of Clear-Water Local Scour of Compound Piers. <i>Journal of Hydraulic Engineering</i> , 2010, 136, 343-351.	0.7	103
11	Land subsidence: A global challenge. <i>Science of the Total Environment</i> , 2021, 778, 146193.	3.9	102
12	Polynomial chaos expansions for uncertainty propagation and moment independent sensitivity analysis of seawater intrusion simulations. <i>Journal of Hydrology</i> , 2015, 520, 101-122.	2.3	101
13	Evolutionary algorithms for the optimal management of coastal groundwater: A comparative study toward future challenges. <i>Journal of Hydrology</i> , 2015, 520, 193-213.	2.3	98
14	A stable moving-particle semi-implicit method for free surface flows. <i>Fluid Dynamics Research</i> , 2006, 38, 241-256.	0.6	96
15	Tidal effects on groundwater dynamics in unconfined aquifers. <i>Hydrological Processes</i> , 2001, 15, 655-669.	1.1	94
16	Sea-level rise impact on fresh groundwater lenses in two-layer small islands. <i>Hydrological Processes</i> , 2014, 28, 5938-5953.	1.1	94
17	Flow Field Around Single and Tandem Piers. <i>Flow, Turbulence and Combustion</i> , 2013, 90, 471-490.	1.4	72
18	How important is the impact of land-surface inundation on seawater intrusion caused by sea-level rise?. <i>Hydrogeology Journal</i> , 2013, 21, 1673-1677.	0.9	72

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19	Engineering nanomaterials for water and wastewater treatment: review of classifications, properties and applications. <i>New Journal of Chemistry</i> , 2019, 43, 7902-7927.	1.4	72
20	Elitist Continuous Ant Colony Optimization Algorithm for Optimal Management of Coastal Aquifers. <i>Water Resources Management</i> , 2011, 25, 165-190.	1.9	71
21	Review: Coastal groundwater optimization advances, challenges, and practical solutions. <i>Hydrogeology Journal</i> , 2015, 23, 1129-1154.	0.9	71
22	Effects of heterogeneities on capillary pressure saturation relative permeability relationships. <i>Journal of Contaminant Hydrology</i> , 2002, 56, 175-192.	1.6	69
23	Numerical simulation of wave generated by landslide incidents in dam reservoirs. <i>Landslides</i> , 2011, 8, 417-432.	2.7	69
24	Vulnerability mapping of coastal aquifers to seawater intrusion: Review, development and application. <i>Journal of Hydrology</i> , 2019, 570, 555-573.	2.3	68
25	Laboratory investigations on impulsive waves caused by underwater landslide. <i>Coastal Engineering</i> , 2008, 55, 989-1004.	1.7	65
26	Efficiency enhancement of optimized Latin hypercube sampling strategies: Application to Monte Carlo uncertainty analysis and meta-modeling. <i>Advances in Water Resources</i> , 2015, 76, 127-139.	1.7	63
27	Optimal Management of a Freshwater Lens in a Small Island Using Surrogate Models and Evolutionary Algorithms. <i>Journal of Hydrologic Engineering - ASCE</i> , 2014, 19, 339-354.	0.8	58
28	Synchronous measurements of the velocity and concentration in low density turbidity currents using an Acoustic Doppler Velocimeter. <i>Flow Measurement and Instrumentation</i> , 2006, 17, 59-68.	1.0	57
29	Lake Urmia crisis and restoration plan: Planning without appropriate data and model is gambling. <i>Journal of Hydrology</i> , 2019, 576, 639-651.	2.3	57
30	Modified incompressible SPH method for simulating free surface problems. <i>Fluid Dynamics Research</i> , 2008, 40, 637-661.	0.6	56
31	A rigorous finite volume model to simulate subaerial and submarine landslide-generated waves. <i>Landslides</i> , 2017, 14, 203-221.	2.7	56
32	Analysis of threshold and incipient conditions for sediment movement. <i>Coastal Engineering</i> , 2008, 55, 423-430.	1.7	55
33	A higher-order Boussinesq-type model with moving bottom boundary: applications to submarine landslide tsunami waves. <i>International Journal for Numerical Methods in Fluids</i> , 2007, 53, 1019-1048.	0.9	53
34	Numerical and experimental study of seepage in unconfined aquifers with a periodic boundary condition. <i>Journal of Hydrology</i> , 1999, 222, 165-184.	2.3	51
35	Model-data interaction in groundwater studies: Review of methods, applications and future directions. <i>Journal of Hydrology</i> , 2018, 567, 457-477.	2.3	50
36	Conceptualization of a fresh groundwater lens influenced by climate change: A modeling study of an arid-region island in the Persian Gulf, Iran. <i>Journal of Hydrology</i> , 2014, 519, 399-413.	2.3	49

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37	Flow field around side-by-side piers with and without a scour hole. <i>European Journal of Mechanics, B/Fluids</i> , 2012, 36, 152-166.	1.2	48
38	Uncertainty analysis for seawater intrusion in fractured coastal aquifers: Effects of fracture location, aperture, density and hydrodynamic parameters. <i>Journal of Hydrology</i> , 2019, 571, 159-177.	2.3	48
39	Experimental Study of Three-Dimensional Flow Field around a Complex Bridge Pier. <i>Journal of Engineering Mechanics - ASCE</i> , 2010, 136, 143-154.	1.6	46
40	Sampling efficiency in Monte Carlo based uncertainty propagation strategies: Application in seawater intrusion simulations. <i>Advances in Water Resources</i> , 2014, 67, 46-64.	1.7	44
41	Estimation of near-field characteristics of tsunami generation by submarine landslide. <i>Ocean Engineering</i> , 2008, 35, 545-557.	1.9	43
42	Scour Hole Influence on Turbulent Flow Field around Complex Bridge Piers. <i>Flow, Turbulence and Combustion</i> , 2016, 97, 451-474.	1.4	43
43	Effective parameters for two-phase flow in a porous medium with periodic heterogeneities. <i>Journal of Contaminant Hydrology</i> , 2001, 49, 87-109.	1.6	42
44	Assessment of sustainable groundwater resources management using integrated environmental index: Case studies across Iran. <i>Science of the Total Environment</i> , 2019, 676, 792-810.	3.9	39
45	The Henry problem: New semianalytical solution for velocity-dependent dispersion. <i>Water Resources Research</i> , 2016, 52, 7382-7407.	1.7	36
46	Truncation errors in finite difference models for solute transport equation with first-order reaction. <i>Journal of Contaminant Hydrology</i> , 1999, 35, 409-428.	1.6	34
47	Assessment of a parallel evolutionary optimization approach for efficient management of coastal aquifers. <i>Environmental Modelling and Software</i> , 2015, 74, 21-38.	1.9	34
48	Interaction of lake-groundwater levels using cross-correlation analysis: A case study of Lake Urmia Basin, Iran. <i>Science of the Total Environment</i> , 2020, 729, 138822.	3.9	34
49	A Numerical Study of Micro-Heterogeneity Effects on Upscaled Properties of Two-Phase Flow in Porous Media. <i>Transport in Porous Media</i> , 2004, 56, 329-350.	1.2	32
50	Inverse modelling for freshwater lens in small islands: Kish Island, Persian Gulf. <i>Hydrological Processes</i> , 2013, 27, 2759-2773.	1.1	32
51	Efficient fuzzy Bayesian inference algorithms for incorporating expert knowledge in parameter estimation. <i>Journal of Hydrology</i> , 2016, 536, 255-272.	2.3	32
52	Chinese and Iranian Scientific Publications: Fast Growth and Poor Ethics. <i>Science and Engineering Ethics</i> , 2017, 23, 317-319.	1.7	31
53	Normalized difference vegetation index as the dominant predicting factor of groundwater recharge in phreatic aquifers: case studies across Iran. <i>Scientific Reports</i> , 2020, 10, 17473.	1.6	31
54	Assessment of nitrate contamination in unsaturated zone of urban areas: The case study of Tehran, Iran. <i>Environmental Geology</i> , 2009, 57, 1785-1798.	1.2	30

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55	Vulnerability assessment of urban groundwater resources to nitrate: the case study of Mashhad, Iran. <i>Environmental Earth Sciences</i> , 2017, 76, 1.	1.3	29
56	Influence of river cross-section data resolution on flood inundation modeling: Case study of Kashkan river basin in western Iran. <i>Journal of Hydrology</i> , 2020, 584, 124743.	2.3	29
57	Non-pumping reactive wells filled with mixing nano and micro zero-valent iron for nitrate removal from groundwater: Vertical, horizontal, and slanted wells. <i>Journal of Contaminant Hydrology</i> , 2018, 210, 50-64.	1.6	28
58	Prediction of current-induced local scour around complex piers: Review, revisit, and integration. <i>Coastal Engineering</i> , 2018, 133, 43-58.	1.7	28
59	Estimation of current-induced pile groups scour using a rule-based method. <i>Journal of Hydroinformatics</i> , 2013, 15, 516-528.	1.1	26
60	Fuzzy vulnerability mapping of urban groundwater systems to nitrate contamination. <i>Environmental Modelling and Software</i> , 2017, 96, 146-157.	1.9	26
61	Influence of lakebed sediment deposit on the interaction of hypersaline lake and groundwater: A simplified case of lake Urmia, Iran. <i>Journal of Hydrology</i> , 2020, 588, 125110.	2.3	26
62	Review of assimilating GRACE terrestrial water storage data into hydrological models: Advances, challenges and opportunities. <i>Earth-Science Reviews</i> , 2021, 213, 103487.	4.0	26
63	Error analysis of finite difference methods for two-dimensional advection–dispersion–reaction equation. <i>Advances in Water Resources</i> , 2005, 28, 793-806.	1.7	25
64	Benchmarked Scaled Nano-Fe <sup>0</sup> Permeable Reactive Barrier for Nitrate Removal. <i>Ground Water Monitoring and Remediation</i> , 2011, 31, 82-94.	0.6	24
65	Transient free-surface seepage in three-dimensional general anisotropic media by BEM. <i>Engineering Analysis With Boundary Elements</i> , 2014, 46, 51-66.	2.0	24
66	A conjunctive management framework for the optimal design of pumping and injection strategies to mitigate seawater intrusion. <i>Journal of Environmental Management</i> , 2021, 282, 111964.	3.8	24
67	Comparison of statistical and MCDM approaches for flood susceptibility mapping in northern Iran. <i>Journal of Hydrology</i> , 2022, 612, 128072.	2.3	24
68	Spring hydrograph simulation of karstic aquifers: Impacts of variable recharge area, intermediate storage and memory effects. <i>Journal of Hydrology</i> , 2017, 552, 225-240.	2.3	22
69	Finite volume coupling strategies for the solution of a Biot consolidation model. <i>Computers and Geotechnics</i> , 2014, 55, 494-505.	2.3	21
70	Evaluation of methods for estimating aquifer hydraulic parameters. <i>Applied Soft Computing Journal</i> , 2015, 28, 541-549.	4.1	21
71	On the effects of landslide deformability and initial submergence on landslide-generated waves. <i>Landslides</i> , 2019, 16, 37-53.	2.7	20
72	Lake Urmia restoration success story: A natural trend or a planned remedy?. <i>Journal of Great Lakes Research</i> , 2021, 47, 955-969.	0.8	20

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73	World Map of Scientific Misconduct. <i>Science and Engineering Ethics</i> , 2018, 24, 1653-1656.	1.7	19
74	Uncertainty quantification and global sensitivity analysis of double-diffusive natural convection in a porous enclosure. <i>International Journal of Heat and Mass Transfer</i> , 2020, 162, 120291.	2.5	19
75	Numerical errors of explicit finite difference approximation for two-dimensional solute transport equation with linear sorption. <i>Environmental Modelling and Software</i> , 2005, 20, 817-826.	1.9	18
76	Validation and inter-comparison of models for landslide tsunami generation. <i>Ocean Modelling</i> , 2022, 170, 101943.	1.0	18
77	Numerical modelling of two-phase flow in a geocentrifuge. <i>Environmental Modelling and Software</i> , 2003, 18, 231-241.	1.9	17
78	A robust finite volume model to simulate granular flows. <i>Computers and Geotechnics</i> , 2015, 66, 96-112.	2.3	17
79	Scour hole depth prediction around pile groups: review, comparison of existing methods, and proposition of a new approach. <i>Natural Hazards</i> , 2017, 88, 977-1001.	1.6	17
80	A Generalized Semi-Analytical Solution for the Dispersive Henry Problem: Effect of Stratification and Anisotropy on Seawater Intrusion. <i>Water (Switzerland)</i> , 2018, 10, 230.	1.2	17
81	Integrated impacts of vegetation and soil type on slope stability: A case study of Kheyrud Forest, Iran. <i>Ecological Modelling</i> , 2021, 446, 109498.	1.2	17
82	Comparison of Numerical Formulations for Two-phase Flow in Porous Media. <i>Geotechnical and Geological Engineering</i> , 2010, 28, 373-389.	0.8	16
83	Convective-reactive transport of dissolved CO <sub>2</sub> in fractured-geological formations. <i>International Journal of Greenhouse Gas Control</i> , 2021, 109, 103365.	2.3	16
84	Capture Zone of a Partially Penetrating Well with Skin Effects in Confined Aquifers. <i>Transport in Porous Media</i> , 2012, 91, 437-457.	1.2	15
85	Impacts of groundwater depth on regional scale soil gleyization under changing climate in the Poyang Lake Basin, China. <i>Journal of Hydrology</i> , 2019, 568, 501-516.	2.3	15
86	A probabilistic framework for water budget estimation in low runoff regions: A case study of the central Basin of Iran. <i>Journal of Hydrology</i> , 2020, 586, 124898.	2.3	15
87	MODSharp: Regional-scale numerical model for quantifying groundwater flux and contaminant discharge into the coastal zone. <i>Environmental Modelling and Software</i> , 2007, 22, 1307-1315.	1.9	14
88	A comparison of finite volume formulations and coupling strategies for two-phase flow in deforming porous media. <i>Computers and Geotechnics</i> , 2015, 67, 17-32.	2.3	14
89	Groundwater travel time computation for two-layer islands. <i>Hydrogeology Journal</i> , 2016, 24, 1045-1055.	0.9	14
90	Mathematical Forms and Numerical Schemes for the Solution of Unsaturated Flow Equations. <i>Journal of Irrigation and Drainage Engineering - ASCE</i> , 2012, 138, 63-72.	0.6	13

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91	Seepage analysis in multi-domain general anisotropic media by three-dimensional boundary elements. <i>Engineering Analysis With Boundary Elements</i> , 2013, 37, 527-541.	2.0	12
92	Curbing Iran's academic misconduct. <i>Science</i> , 2016, 351, 1273-1274.	6.0	12
93	Modification of Weakly Compressible Smoothed Particle Hydrodynamics for Preservation of Angular Momentum in Simulation of Impulsive Wave Problems. <i>Coastal Engineering Journal</i> , 2009, 51, 363-386.	0.7	11
94	On the use of COMSOL Multiphysics for seawater intrusion in fractured coastal aquifers. <i>E3S Web of Conferences</i> , 2018, 54, 00020.	0.2	11
95	Study of the Effect of Thermal Dispersion on Internal Natural Convection in Porous Media Using Fourier Series. <i>Transport in Porous Media</i> , 2020, 131, 537-568.	1.2	11
96	Discussion of "Neuro-fuzzy GMDH systems based evolutionary algorithms to predict scour pile groups in clear water conditions" by M. Najafzadeh. <i>Ocean Engineering</i> , 2016, 123, 249-252.	1.9	10
97	A Modeling Platform for Landslide Stability: A Hydrological Approach. <i>Water (Switzerland)</i> , 2019, 11, 2146.	1.2	10
98	Discussion of "Clear-Water Local Scour around Pile Groups in Shallow-Water Flow" by Ata Amini, Bruce W. Melville, Thamer M. Ali, and Abdul H. Ghazali. <i>Journal of Hydraulic Engineering</i> , 2013, 139, 679-680.	0.7	9
99	Influence of Boundary Condition Types on Unstable Density-Dependent Flow. <i>Ground Water</i> , 2014, 52, 378-387.	0.7	9
100	Unstable Density-Driven Flow in Fractured Porous Media: The Fractured Elder Problem. <i>Fluids</i> , 2019, 4, 168.	0.8	8
101	Effect of distance-dependent dispersivity on density-driven flow in porous media. <i>Journal of Hydrology</i> , 2020, 589, 125204.	2.3	8
102	A multifaceted quantitative index for sustainability assessment of groundwater management: application for aquifers around Iran. <i>Water International</i> , 2022, 47, 338-360.	0.4	8
103	Effect of DEM resolution in flood modeling: a case study of Gorganrood River, Northeastern Iran. <i>Natural Hazards</i> , 2022, 112, 2673-2693.	1.6	8
104	Three dimensional flow in anisotropic zoned porous media using boundary element method. <i>Engineering Analysis With Boundary Elements</i> , 2012, 36, 812-824.	2.0	7
105	Representative pumping wells network to estimate groundwater withdrawal from aquifers: Lessons from a developing country, Iran. <i>Journal of Hydrology</i> , 2019, 578, 124090.	2.3	7
106	An improved Kalman filtering approach for the estimation of unsaturated flow parameters by assimilating photographic imaging data. <i>Journal of Hydrology</i> , 2020, 590, 125373.	2.3	7
107	A note on benchmarking of numerical models for density dependent flow in porous media. <i>Advances in Water Resources</i> , 2006, 29, 1918-1923.	1.7	6
108	Numerical modeling of subsidence in saturated porous media: A mass conservative method. <i>Journal of Hydrology</i> , 2016, 542, 423-436.	2.3	6

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109	Semianalytical solutions for contaminant transport under variable velocity field in a coastal aquifer. <i>Journal of Hydrology</i> , 2018, 560, 434-450.	2.3	6
110	The millennium-old hydrogeology textbook &lt;i>&gt;The Extraction of Hidden Waters&lt;/i>; by the Persian mathematician and engineer AbubakrÂMohammadÂKaraji (953â€‰%CEâ€‰1029â€‰%CE). <i>Hydrology and Earth System Sciences</i> , 2020, 24, 761-769.	1.9	5
111	COMMENT ON "REMOVING NUMERICALLY INDUCED DISPERSION FROM FINITE DIFFERENCE MODELS FOR SOLUTE AND WATER TRANSPORT IN UNSATURATED SOILS". <i>Soil Science</i> , 1995, 160, 442-443.	0.9	4
112	Conceptualization of Karstic Aquifer with Multiple Outlets Using a Dual Porosity Model. <i>Ground Water</i> , 2017, 55, 558-564.	0.7	4
113	Confusion About "Convection". <i>Ground Water</i> , 2018, 56, 683-687.	0.7	4
114	A Fourier Series Solution for Transient Three-Dimensional Thermohaline Convection in Porous Enclosures. <i>Water Resources Research</i> , 2020, 56, e2020WR028111.	1.7	4
115	Hybrid finite volume-finite element methods for hydro-mechanical analysis in highly heterogeneous porous media. <i>Computers and Geotechnics</i> , 2021, 132, 103996.	2.3	4
116	DNAPL flow and complex electrical resistivity evolution in saturated porous media: A coupled numerical simulation. <i>Journal of Contaminant Hydrology</i> , 2022, 248, 104003.	1.6	4
117	Comment on "Effects of tidal fluctuations on mixing and spreading in coastal aquifers: Homogeneous case" by MarÂPool et al.. <i>Water Resources Research</i> , 2015, 51, 4858-4858.	1.7	3
118	Uncertainty analysis of wind-wave predictions in Lake Michigan. <i>China Ocean Engineering</i> , 2016, 30, 811-820.	0.6	3
119	Improving model-data interaction in hydrogeology: Insights from different disciplines. <i>Journal of Hydrology</i> , 2020, 580, 124275.	2.3	3
120	Subaerial Landslide-Generated Waves: Numerical and Laboratory Simulations. , 2017, , 51-73.		3
121	Quantifying lake-aquifer water exchange: the case of Lake Urmia, Iran. <i>Hydrological Sciences Journal</i> , 2022, 67, 725-740.	1.2	3
122	Numerical simulations of turbulent flow around side-by-side circular piles with different spacing ratios. <i>International Journal of River Basin Management</i> , 2017, 15, 227-238.	1.5	2
123	Density-based global sensitivity analysis of sheet-flow travel time: Kinematic wave-based formulations. <i>Journal of Hydrology</i> , 2018, 559, 556-568.	2.3	2
124	Discussion of "an integrated framework of extreme learning machines for predicting scour at pile groups in clear water condition" by: I. Ebttehaj, H. Bonakdari, F. Moradi, B. Gharabaghi, Z. Sheikh Khozani. <i>Coastal Engineering</i> , 2018, 142, 106-109.	1.7	2
125	The Autonomy of Science as a Civilian Casualty of Economic Warfare: Inadvertent Censorship of Science Resulting from Unilateral Economic Sanctions. <i>Science and Engineering Ethics</i> , 2021, 27, 49.	1.7	2
126	Preface: Thematic issue "Landslide-generated tsunami waves". <i>Landslides</i> , 2016, 13, 1321-1321.	2.7	1



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127	Recruitment Processes in Academia: Does the Emperor Have Any Clothes?. Science and Engineering Ethics, 2016, 22, 1565-1568.	1.7	1
128	Editorial: Modeling-Based Approaches for Water Resources Problems. Frontiers in Water, 2022, 4, .	1.0	1
129	Improvement of soil moisture and groundwater level estimations using a scale-consistent river parameterization for the coupled ParFlow-CLM hydrological model: A case study of the Upper Rhine Basin. Journal of Hydrology, 2022, 610, 127991.	2.3	1
130	Graphitic carbon nitride-based composites for photocatalytic abatement of emerging pollutants. , 2022, , 175-214.		1
131	Numerical simulation of two-phase flow in a geocentrifuge. Developments in Water Science, 2002, 47, 225-232.	0.1	0
132	Improved MPS method for simulating water flow with irregular free surface. Developments in Water Science, 2004, , 1743-1753.	0.1	0
133	Declaration of Conflicts of Interest in Networking Era: Raising the Bar. Science and Engineering Ethics, 2016, 22, 1855-1857.	1.7	0
134	Fourier series solution for an anisotropic and layered configuration of the dispersive Henry Problem. E3S Web of Conferences, 2018, 54, 00014.	0.2	0
135	Discussion of "Estimation of Clear-Water Local Scour at Pile Groups Using Genetic Expression Programming and Multivariate Adaptive Regression Splines" by S. M. Bateni, H. R. Vosoughifar, B. Truce, and D. S. Jeng. Journal of Waterway, Port, Coastal and Ocean Engineering, 2020, 146, 07020001.	0.5	0