Zhiguo He

List of Publications by Year
in descending order

94 papers	1,391 citations	394421 19 h-index	395702 33 g-index
94 all docs	94 docs citations	94 times ranked	1239 citing authors

#	Article	IF	Citations
1	Experimental study of the impact of rainfall characteristics on runoff generation and soil erosion. Journal of Hydrology, 2012, 424-425, 99-111.	5.4	171
2	Earthen Embankment Breaching. Journal of Hydraulic Engineering, 2011, 137, 1549-1564.	1.5	170
3	Depth-Averaged Two-Dimensional Model of Unsteady Flow and Sediment Transport due to Noncohesive Embankment Break/Breaching. Journal of Hydraulic Engineering, 2012, 138, 503-516.	1.5	65
4	Opportunities for blue carbon strategies in China. Ocean and Coastal Management, 2020, 194, 105241.	4.4	60
5	Effects of vegetation on flow conveyance and sediment transport capacity. International Journal of Sediment Research, 2009, 24, 247-259.	3.5	42
6	Calibration of Nodal Demand in Water Distribution Systems. Journal of Water Resources Planning and Management - ASCE, 2011, 137, 31-40.	2.6	38
7	Hydrodynamics of Gravity Currents Down a Ramp in Linearly Stratified Environments. Journal of Hydraulic Engineering, 2017, 143, .	1.5	37
8	Computationally efficient modeling of hydro-sediment-morphodynamic processes using a hybrid local time step/global maximum time step. Advances in Water Resources, 2019, 127, 26-38.	3.8	34
9	Dynamics of sediment transport and stratification in Changjiang River Estuary, China. Estuarine, Coastal and Shelf Science, 2018, 213, 1-17.	2.1	31
10	Cutting management of riparian vegetation by using hydrodynamic model simulations. Advances in Water Resources, 2008, 31, 1299-1308.	3.8	29
11	Coupled Finite-Volume Model for 2D Surface and 3D Subsurface Flows. Journal of Hydrologic Engineering - ASCE, 2008, 13, 835-845.	1.9	25
12	Numerical analysis of effects of large wood structures on channel morphology and fish habitat suitability in a Southern US sandy creek. Ecohydrology, 2009, 2, 370-380.	2.4	25
13	Numerical simulation of dam-break flow and bed change considering the vegetation effects. International Journal of Sediment Research, 2017, 32, 105-120.	3.5	25
14	Effects of climate change on peak runoff and flood levels in Qu River Basin, East China. Journal of Hydro-Environment Research, 2020, 28, 34-47.	2.2	24
15	Numerical modelling study of seawater intrusion in Indus River Estuary, Pakistan. Ocean Engineering, 2019, 184, 74-84.	4.3	23
16	Numerical simulation of two coalescing turbulent forced plumes in linearly stratified fluids. Physics of Fluids, 2019, 31, .	4.0	23
17	Mechanical Metamaterials Gyro-Structure Piezoelectric Nanogenerators for Energy Harvesting under Quasi-Static Excitations in Ocean Engineering. ACS Omega, 2021, 6, 15348-15360.	3.5	21
18	Soil erosion and pollutant transport during rainfall-runoff processes. Water Resources, 2014, 41, 604-611.	0.9	19

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19	Well-balanced and flexible morphological modeling of swash hydrodynamics and sediment transport. Coastal Engineering, 2015, 96, 27-37.	4.0	19
20	Responses of water environment to tidal flat reduction in Xiangshan Bay: Part II locally re-suspended sediment dynamics. Estuarine, Coastal and Shelf Science, 2017, 198, 114-127.	2.1	18
21	Scaling for turbulent viscosity of buoyant plumes in stratified fluids: PIV measurement with implications for submarine hydrothermal plume turbulence. Deep-Sea Research Part I: Oceanographic Research Papers, 2017, 129, 89-98.	1.4	17
22	Interaction impacts of tides, waves and winds on storm surge in a channel-island system: observational and numerical study in Yangshan Harbor. Ocean Dynamics, 2020, 70, 307-325.	2.2	17
23	Investigations of dynamic behaviors of lock-exchange turbidity currents down a slope based on direct numerical simulation. Advances in Water Resources, 2018, 119, 164-177.	3.8	16
24	High-speed soft actuators based on combustion-enabled transient driving method (TDM). Extreme Mechanics Letters, 2020, 37, 100731.	4.1	16
25	Is it appropriate to model turbidity currents with the threeâ€equation model?. Journal of Geophysical Research F: Earth Surface, 2015, 120, 1153-1170.	2.8	15
26	Improved Local Time Step for 2D Shallow-Water Modeling Based on Unstructured Grids. Journal of Hydraulic Engineering, 2019, 145, .	1.5	15
27	Separation of particle-laden gravity currents down a slope in linearly stratified environments. Physics of Fluids, 2019, 31, .	4.0	15
28	Unified Model of Sediment Transport Threshold and Rate Across Weak and Intense Subaqueous Bedload, Windblown Sand, and Windblown Snow. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2020JF005859.	2.8	15
29	Numerical investigation of a sandbar formation and evolution in a tide-dominated estuary using a hydro-morphodynamic model. Coastal Engineering Journal, 2018, 60, 466-483.	1.9	14
30	Untethered, high-speed soft jumpers enabled by combustion for motions through multiphase environments. Smart Materials and Structures, 2021, 30, 015035.	3.5	14
31	Impacts of Sea Level Rise and River Discharge on the Hydrodynamics Characteristics of Jakarta Bay (Indonesia). Water (Switzerland), 2019, 11, 1384.	2.7	13
32	Front Velocity and Front Location of Lock-Exchange Gravity Currents Descending a Slope in a Linearly Stratified Environment. Journal of Hydraulic Engineering, 2018, 144, .	1.5	12
33	Role of barâ€channel interactions in a dominant branch shift: The Taipingkou waterway, Yangtze River, China. River Research and Applications, 2021, 37, 494-508.	1.7	12
34	Integrated Two-Dimensional Surface and Three-Dimensional Subsurface Contaminant Transport Model Considering Soil Erosion and Sorption. Journal of Hydraulic Engineering, 2009, 135, 1028-1040.	1.5	11
35	An optimized dispersionâ€“relation-preserving combined compact difference scheme to solve advection equations. Journal of Computational Physics, 2015, 300, 92-115.	3.8	11
36	Dynamic Interaction and Mixing of Two Turbulent Forced Plumes in Linearly Stratified Ambience. Journal of Hydraulic Engineering, 2018, 144, .	1.5	11

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37	Physically-based approach to analyze rainfall-triggered landslide using hydraulic gradient as slide direction. Journal of Zhejiang University: Science A, 2012, 13, 943-957.	2.4	10
38	Modeling of Breaching Due to Overtopping Flow and Waves Based on Coupled Flow and Sediment Transport. Water (Switzerland), 2015, 7, 4283-4304.	2.7	10
39	Variations of temperature, salinity and current in the southern tidal passage of the Hangzhou Bay, China. Acta Oceanologica Sinica, 2016, 35, 30-37.	1.0	10
40	Transition of a Hyperpycnal Flow Into a Saline Turbidity Current Due to Differential Diffusivities. Geophysical Research Letters, 2018, 45, 11,875.	4.0	10
41	The impacts of the large-scale hydraulic structures on tidal dynamics in open-type bay: numerical study in Jakarta Bay. Ocean Dynamics, 2018, 68, 1141-1154.	2.2	10
42	Transport and Deposition Patterns of Particles Laden by Rising Submarine Hydrothermal Plumes. Geophysical Research Letters, 2020, 47, e2020GL089935.	4.0	10
43	Experimental study on the vertical motion of colliding gravity currents. Physics of Fluids, 2021, 33, 016601.	4.0	10
44	Large deformation mechanics of the thrust performances generated by combustion-enabled soft actuators. International Journal of Mechanical Sciences, 2022, 229, 107513.	6.7	10
45	Integral model for multiple forced plumes arranged around a circle in a linearly stratified environment. Physical Review Fluids, 2019, 4, .	2.5	9
46	Fluid-particle interaction regimes during the evolution of turbidity currents from a coupled LES/DEM model. Advances in Water Resources, 2022, 163, 104171.	3.8	9
47	Grain-resolving simulations of submerged cohesive granular collapse. Journal of Fluid Mechanics, 2022, 942, .	3.4	9
48	Investigation of Storm Tides Induced by Super Typhoon in Macro-Tidal Hangzhou Bay. Frontiers in Marine Science, 0, 9, .	2.5	9
49	Large Effects of Particle Size Heterogeneity on Dynamic Saltation Threshold. Journal of Geophysical Research F: Earth Surface, 2019, 124, 2311-2321.	2.8	8
50	Propagation, mixing, and turbulence characteristics of saline and turbidity currents over rough and permeable/impermeable beds. Physics of Fluids, 2022, 34, .	4.0	8
51	Development of a Cell-Centered Godunov-Type Finite Volume Model for Shallow Water Flow Based on Unstructured Mesh. Mathematical Problems in Engineering, 2014, 2014, 1-15.	1.1	7
52	A numerical study on the high-velocity impact behavior of pressure pipes. Journal of Zhejiang University: Science A, 2016, 17, 443-453.	2.4	7
53	Numerical modeling of lock-exchange gravity/turbidity currents by a high-order upwinding combined compact difference scheme. International Journal of Sediment Research, 2019, 34, 240-250.	3.5	7
54	Impacts of coastal reclamation on tidal and sediment dynamics in the Ruiâ€™an coast of China. Ocean Dynamics, 2021, 71, 323-341.	2.2	7

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55	Limitations of empirical sediment transport formulas for shallow water and their consequences for swash zone modelling. Journal of Hydraulic Research/De Recherches Hydrauliques, 2017, 55, 114-120.	1.7	6
56	Effect of Inclination Angles on the Local Scour around a Submerged Cylinder. Water (Switzerland), 2020, 12, 2687.	2.7	6
57	Experimental Study on Sand Dike Breaching by Wave Overtopping. Applied Ocean Research, 2020, 101, 102195.	4.1	6
58	Numerical modeling of scour and deposition around permeable cylindrical structures. International Journal of Sediment Research, 2020, 35, 278-286.	3.5	6
59	Hydrodynamics of weakly and strongly stratified two-layer lock-release gravity currents. Journal of Hydraulic Research/De Recherches Hydrauliques, 2021, 59, 989-1003.	1.7	6
60	A Depth-Averaged 2-D Model of Non-Cohesive Dam/Levee Breach Processes. , 2009, , .		5
61	Spatio-temporal distribution of internal waves in the Andaman Sea based on satellite remote sensing. , 2016, , .		5
62	A well-balanced positivity preserving two-dimensional shallow flow model with wetting and drying fronts over irregular topography. Journal of Hydrodynamics, 2018, 30, 618-631.	3.2	5
63	Numerical Investigation on the Adaptation of Dam-Break Flow-Induced Bed Load Transport to the Capacity Regime over a Sloping Bed. Journal of Coastal Research, 2020, 36, .	0.3	5
64	Analysis of the Dynamic Response in Blast-Loaded CFRP-Strengthened Metallic Beams. Advances in Materials Science and Engineering, 2013, 2013, 1-13.	1.8	4
65	A numerical study on the effect of tidal flatâ€™s slope on tidal dynamics in the Xiangshan Bay, China. Acta Oceanologica Sinica, 2018, 37, 29-40.	1.0	4
66	Layer-averaged numerical study on effect of Reynolds number on turbidity currents. Journal of Hydraulic Research/De Recherches Hydrauliques, 2020, 58, 628-637.	1.7	4
67	Experimental study of horizontal heated buoyant jets in a linearly stratified ambience. Physics of Fluids, 2021, 33, .	4.0	4
68	Removal of a dense bottom layer by a gravity current. Journal of Fluid Mechanics, 2021, 916, .	3.4	4
69	Particle-laden gravity currents interacting with stratified ambient water using direct numerical simulations. Environmental Earth Sciences, 2021, 80, 1.	2.7	4
70	Impact of moving rainfall events on hillslope pollutant transport. Environmental Earth Sciences, 2015, 74, 5989-5999.	2.7	3
71	Rainband feature tracking for wind speeds around typhoon eyes using multiple sensors. International Journal of Remote Sensing, 2016, 37, 2016-2031.	2.9	3
72	Front propagation of gravity currents on inclined bottoms in linearly stratified fluids. Environmental Fluid Mechanics, 2019, 19, 279-296.	1.6	3

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73	A RANS numerical study of experimental swash flows and its bed shear stress estimation. Applied Ocean Research, 2020, 100, 102145.	4.1	3
74	Experiments on gravity currents down a ramp in unstratified and linearly stratified salt water environments. Zhongguo Kexue Jishu Kexue/Scientia Sinica Technologica, 2016, 46, 570-578.	0.5	3
75	Numerical Investigation of the Sediment Hyperpycnal Flow in the Yellow River Estuary. Journal of Marine Science and Engineering, 2022, 10, 943.	2.6	3
76	A Depth-Averaged 2-D Analysis of Fish Habitat Suitability Impacted by Vegetation and Sediment. , 2006, , 1.		2
77	International scientists discuss impact on Chinaâ€™s estuarine and coastal environment by intensive anthropogenic activities â€“ The 2nd workshop on sediment dynamics of muddy coasts and estuaries: Physics, biology and their interactions, Zhoushan, China, 23â€“26 October, 2015. Estuarine, Coastal and Shelf Science, 2016, 168, ii-iii.	2.1	2
78	Porous Shallow Water Modeling for Urban Floods in the Zhoushan City, China. Frontiers in Earth Science, 2021, 9, .	1.8	2
79	A GPU-Accelerated and LTS-Based Finite Volume Shallow Water Model. Water (Switzerland), 2022, 14, 922.	2.7	2
80	A physically-based integrated numerical model for flow, upland erosion, and contaminant transport in surface-subsurface systems. Science in China Series D: Earth Sciences, 2009, 52, 3391-3400.	0.9	1
81	Prediction and application for rain induced shallow landslides in natural catchments. , 2011, , .		1
82	Modeling pollutant transport in overland flow over non-planar and non-homogenous infiltrating surfaces. Journal of Zhejiang University: Science A, 2013, 14, 110-119.	2.4	1
83	Changes in the Hydrodynamics of Hangzhou Bay Due to Land Reclamation in the Past 60 Years. , 2019, , 77-93.		1
84	The Seasonal Variation of the Anomalously High Salinity at Subsurface Salinity Maximum in Northern South China Sea from Argo Data. Journal of Marine Science and Engineering, 2021, 9, 227.	2.6	1
85	A Computationally Efficient Shallow Water Model for Mixed Cohesive and Non-Cohesive Sediment Transport in the Yangtze Estuary. Water (Switzerland), 2021, 13, 1435.	2.7	1
86	Numerical study on the morphological evolution of the Qingshuigou channel on the Yellow River Delta in response to changing water and sediment regimes. IOP Conference Series: Earth and Environmental Science, 2021, 820, 012023.	0.3	1
87	Contribution of sediments to stratification in a fluvial estuarine system during a low-discharge period. Estuarine, Coastal and Shelf Science, 2021, 261, 107537.	2.1	1
88	Prediction of Changes in Soil Moisture Due to Rainfall, Infiltration, and Evapotranspiration Using a Physically-Based Model. , 2009, , .		0
89	Finite volume method solution of pollutant transport in catchment sheet flow. Hydrology Research, 2014, 45, 182-189.	2.7	0
90	An Introduction to Zhejiang University - Zhairuoshan Experimental Research Observatory and Retrieved Data Analysis. , 2015, , .		0

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91	Effect of precipitation on the wind retrieval from synthetic aperture radar. , 2016, , .		0
92	A Multi-Phase Mathematical Model for Gravity Currents. , 2016, , .		0
93	Hydrodynamics of horizontal heated buoyant jet in linearly stratified fluids. Physics of Fluids, 2022, 34, 025108.	4.0	0
94	Impacts of River Discharge on the Sea Temperature in Changjiang Estuary and Its Adjacent Sea. Journal of Marine Science and Engineering, 2022, 10, 343.	2.6	0