Chin H Wu

List of Publications by Year
in descending order

90 papers	3,386 citations	147726 31 h-index	155592 55 g-index
100 all docs	100 docs citations	100 times ranked	3754 citing authors

#	Article	IF	Citations
1	Derivation of lake mixing and stratification indices from high-resolution lake buoy data. Environmental Modelling and Software, 2011, 26, 1325-1336.	1.9	347
2	Lake‐size dependency of wind shear and convection as controls on gas exchange. Geophysical Research Letters, 2012, 39, .	1.5	199
3	Lake microbial communities are resilient after a whole-ecosystem disturbance. ISME Journal, 2012, 6, 2153-2167.	4.4	198
4	Understanding Regional Change: A Comparison of Two Lake Districts. BioScience, 2007, 57, 323-335.	2.2	129
5	Resistance, resilience and recovery: aquatic bacterial dynamics after water column disturbance. Environmental Microbiology, 2011, 13, 2752-2767.	1.8	127
6	Response of water temperatures and stratification to changing climate in three lakes with different morphometry. Hydrology and Earth System Sciences, 2017, 21, 6253-6274.	1.9	112
7	Evaluation of metabolism models for free‐water dissolved oxygen methods in lakes. Limnology and Oceanography: Methods, 2008, 6, 454-465.	1.0	104
8	A new vertical coordinate system for a 3D unstructured-grid model. Ocean Modelling, 2015, 85, 16-31.	1.0	102
9	Modeling the capacity of a novel flow-energy harvester. Applied Mathematical Modelling, 2009, 33, 2207-2217.	2.2	101
10	Automated trinocular stereo imaging system for three-dimensional surface wave measurements. Ocean Engineering, 2006, 33, 723-747.	1.9	95
11	Breaking criteria and energy losses for three-dimensional wave breaking. Journal of Geophysical Research, 2002, 107, 41-1.	3.3	90
12	General circulation of Lake Superior: Mean, variability, and trends from 1979 to 2006. Journal of Geophysical Research, 2010, 115, .	3.3	88
13	An implicit three-dimensional fully non-hydrostatic model for free-surface flows. International Journal for Numerical Methods in Fluids, 2004, 46, 709-733.	0.9	81
14	Trends and abrupt changes in 104 years of ice cover and water temperature in a dimictic lake in response to air temperature, wind speed, and water clarity drivers. Hydrology and Earth System Sciences, 2016, 20, 1681-1702.	1.9	69
15	Richards Equation Model of a Rain Garden. Journal of Hydrologic Engineering - ASCE, 2004, 9, 219-225.	0.8	67
16	Laboratory measurements of limiting freak waves on currents. Journal of Geophysical Research, 2004, 109, .	3.3	66
17	Numerical determination of residence time and age in a partially mixed estuary using three-dimensional hydrodynamic model. Continental Shelf Research, 2008, 28, 1068-1088.	0.9	57
18	Time-scale dependence in numerical simulations: Assessment of physical, chemical, and biological predictions in a stratified lake at temporal scales of hours to months. Environmental Modelling and Software, 2012, 35, 104-121.	1.9	55

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19	Numerical simulation of UV disinfection reactors: Evaluation of alternative turbulence models. Applied Mathematical Modelling, 2007, 31, 1753-1769.	2.2	54
20	A two-dimensional vertical non-hydrostaticσ model with an implicit method for free-surface flows. International Journal for Numerical Methods in Fluids, 2004, 44, 811-835.	0.9	52
21	A Comparison of Two- and Three-Dimensional Wave Breaking. Journal of Physical Oceanography, 1998, 28, 1496-1510.	0.7	50
22	Effects of changing climate on ice cover in three morphometrically different lakes. Hydrological Processes, 2017, 31, 308-323.	1.1	47
23	Virtual wave gauges based upon stereo imaging for measuring surface wave characteristics. Coastal Engineering, 2011, 58, 305-316.	1.7	45
24	Meteotsunamis in the Laurentian Great Lakes. Scientific Reports, 2016, 6, 37832.	1.6	43
25	Reconstruction of a meteotsunami in <scp>L</scp>ake <scp>E</scp>rie on 27 <scp>M</scp>ay 2012: Roles of atmospheric conditions on hydrodynamic response in enclosed basins. Journal of Geophysical Research: Oceans, 2015, 120, 8020-8038.	1.0	41
26	Development and Application of an Automated River-Estuary Discharge Imaging System. Journal of Hydraulic Engineering, 2012, 138, 327-339.	0.7	39
27	Unexpected rip currents induced by a meteotsunami. Scientific Reports, 2019, 9, 2105.	1.6	37
28	Bluff Recession Rates and Wave Impact Along the Wisconsin Coast of Lake Superior. Journal of Great Lakes Research, 2006, 32, 512-530.	0.8	36
29	Fully Nonhydrostatic Modeling of Surface Waves. Journal of Engineering Mechanics - ASCE, 2006, 132, 447-456.	1.6	36
30	A higher-order σ-coordinate non-hydrostatic model for nonlinear surface waves. Ocean Engineering, 2007, 34, 1357-1370.	1.9	34
31	Factors Controlling Rates of Bluff Recession at Two Sites on Lake Michigan. Journal of Great Lakes Research, 2005, 31, 306-321.	0.8	33
32	The Lake Michigan meteotsunamis of 1954 revisited. Natural Hazards, 2014, 74, 155-177.	1.6	33
33	Incipient breaking of unsteady waves on sheared currents. Physics of Fluids, 2005, 17, 082104.	1.6	32
34	A higher-order non-hydrostatic σ model for simulating non-linear refraction–diffraction of water waves. Coastal Engineering, 2009, 56, 919-930.	1.7	31
35	Meteotsunami occurrences and causes in <scp>L</scp>ake <scp>M</scp>ichigan. Journal of Geophysical Research: Oceans, 2015, 120, 8422-8438.	1.0	31
36	A new efficient 3D non-hydrostatic free-surface flow model for simulating water wave motions. Ocean Engineering, 2006, 33, 587-609.	1.9	30

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37	An entropy–based surface velocity method for estuarine discharge measurement. Water Resources Research, 2014, 50, 6106-6128.	1.7	30
38	Characterization and assessment of the meteotsunami hazard in northern <scp>L</scp>ake <scp>M</scp>ichigan. Journal of Geophysical Research: Oceans, 2016, 121, 7141-7158.	1.0	29
39	Observed variability of Lake Superior pCO2. Limnology and Oceanography, 2011, 56, 775-786.	1.6	26
40	Efficient Nonhydrostatic Modeling of Surface Waves from Deep to Shallow Water. Journal of Waterway, Port, Coastal and Ocean Engineering, 2010, 136, 104-118.	0.5	24
41	An automated image-based technique for tracking sequential surface wave profiles. Ocean Engineering, 2005, 32, 157-173.	1.9	23
42	An efficient curvilinear non–hydrostatic model for simulating surface water waves. International Journal for Numerical Methods in Fluids, 2011, 66, 1093-1115.	0.9	22
43	Energy Dissipation of Unsteady Wave Breaking on Currents. Journal of Physical Oceanography, 2004, 34, 2288-2304.	0.7	21
44	Spatial and Temporal Characteristics of Transient Extreme Wave Profiles on Depth-Varying Currents. Journal of Engineering Mechanics - ASCE, 2006, 132, 1015-1025.	1.6	21
45	Drivers and Management Implications of Long-Term Cisco Oxythermal Habitat Decline in Lake Mendota, WI. Environmental Management, 2019, 63, 396-407.	1.2	21
46	Automated Sediment Erosion Testing System Using Digital Imaging. Journal of Hydraulic Engineering, 2004, 130, 771-782.	0.7	20
47	Ice cover and thermal regime in a dimictic seepage lake under climate change. Inland Waters, 2018, 8, 381-398.	1.1	20
48	A combined acoustic and electromagnetic wave-based techniques for bathymetry and subbottom profiling in shallow waters. Journal of Applied Geophysics, 2009, 68, 203-218.	0.9	19
49	Observations of surface waves interacting with ice using stereo imaging. Journal of Geophysical Research: Oceans, 2014, 119, 3266-3284.	1.0	19
50	Efficient non-hydrostatic modelling of surface waves interacting with structures. Applied Mathematical Modelling, 2007, 31, 687-699.	2.2	18
51	An efficient and accurate non–hydrostatic model with embedded Boussinesq–type like equations for surface wave modeling. International Journal for Numerical Methods in Fluids, 2009, 60, 27-53.	0.9	18
52	Estimates of phosphorus entrainment in Lake Mendota: a comparison of one–dimensional and three–dimensional approaches. Limnology and Oceanography: Methods, 2009, 7, 553-567.	1.0	15
53	The role of rooted emergent vegetation on periodically thermal-driven flow over a sloping bottom. Environmental Fluid Mechanics, 2014, 14, 1303-1334.	0.7	15
54	Wave climatology in the Apostle Islands, Lake Superior. Journal of Geophysical Research: Oceans, 2015, 120, 4869-4890.	1.0	15

#	ARTICLE	IF	CITATIONS
55	Role of Meteorologically Induced Water Level Oscillations on Bottom Shear Stress in Freshwater Estuaries in the Great Lakes. Journal of Geophysical Research: Oceans, 2018, 123, 4970-4987.	1.0	12
56	Temperature and Circulation Dynamics in a Small and Shallow Lake: Effects of Weak Stratification and Littoral Submerged Macrophytes. Water (Switzerland), 2019, 11, 128.	1.2	12
57	Simultaneous particle size and concentration measurements using a back-lighted particle imaging system. Flow Measurement and Instrumentation, 2009, 20, 189-199.	1.0	11
58	Nonhydrostatic Modeling of Nonlinear Deep-Water Wave Groups. Journal of Engineering Mechanics - ASCE, 2010, 136, 155-167.	1.6	11
59	Modeling oxythermal stress for cool-water fishes in lakes using a cumulative dosage approach. Canadian Journal of Fisheries and Aquatic Sciences, 2018, 75, 1303-1312.	0.7	11
60	Lifeguarding Operational Camera Kiosk System (LOCKS) for flash rip warning: Development and application. Coastal Engineering, 2019, 152, 103537.	1.7	11
61	Modeling diagnosis of suspended sediment transport in tidal estuarine system. Environmental Geology, 2009, 57, 1661.	1.2	10
62	An integrated acoustic and electromagnetic wave-based technique to estimate subbottom sediment properties in a freshwater environment. Near Surface Geophysics, 2010, 8, 213-221.	0.6	10
63	Effects of a sharp change of emergent vegetation distributions on thermally driven flow over a slope. Environmental Fluid Mechanics, 2015, 15, 771-791.	0.7	10
64	Diurnal Dynamics in a Small Shallow Lake under Spatially Nonuniform Wind and Weak Stratification. Journal of Hydraulic Engineering, 2016, 142, .	0.7	10
65	"Gradual Entrainment Lake Inverter"(GELI): A novel device for experimental lake mixing. Limnology and Oceanography: Methods, 2011, 9, 14-28.	1.0	9
66	Development and Application of a Nowcast and Forecast System Tool for Planning and Managing a River Chain of Lakes. Water Resources Management, 2016, 30, 1375-1393.	1.9	9
67	Hydrologic and Water Quality Functions of a Disturbed Wetland in an Agricultural Setting[1]. Journal of the American Water Resources Association, 2009, 45, 628-640.	1.0	8
68	A field study of nearshore environmental changes in response to newly-built coastal structures in Lake Michigan. Journal of Great Lakes Research, 2014, 40, 102-114.	0.8	8
69	Modelling effects of realignment of Keelung River, Taiwan. Proceedings of the Institution of Civil Engineers: Maritime Engineering, 2008, 161, 73-87.	1.4	7
70	A σ-coordinate non-hydrostatic model with embedded Boussinesq-type-like equations for modeling deep-water waves. International Journal for Numerical Methods in Fluids, 2010, 63, 1448-1470.	0.9	7
71	Response of bottom sediment stability after carp removal in a small lake. Annales De Limnologie, 2013, 49, 157-168.	0.6	7
72	Development and application of a real-time water environment cyberinfrastructure for kayaker safety in the Apostle Islands, Lake Superior. Journal of Great Lakes Research, 2018, 44, 990-1001.	0.8	6

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73	Dispersion of suspended particles in a wave boundary layer over a viscoelastic bed. International Journal of Engineering Science, 2008, 46, 50-65.	2.7	5
74	Unexpected meteotsunamis prior to Typhoon Wipha and Typhoon Neoguri. Natural Hazards, 2021, 106, 1673-1686.	1.6	5
75	Brief communication "What do we know about freaque waves in the ocean and lakes and how do we know it?". Natural Hazards and Earth System Sciences, 2010, 10, 2191-2196.	1.5	4
76	Flow measurement with multiâ€instrumentation in a tidalâ€affected river. Water and Environment Journal, 2011, 25, 563-572.	1.0	4
77	Drowning incidents and conditions due to hidden flash rips in Lake Michigan. Science of the Total Environment, 2022, 827, 154314.	3.9	4
78	The Lake Michigan meteotsunamis of 1954 revisited. , 2014, , 155-177.		3
79	Efficiency and Accuracy of Non-Hydrostatic Modeling of Free-Surface Flows. , 2006, , 434.		2
80	The Role of Non-Hydrostatic Effects in Nonlinear Dispersive Wave Modeling. Water (Switzerland), 2020, 12, 3513.	1.2	2
81	Wave Heights in a 4D Ocean Wave Field. , 2008, , .		2
82	Rip currents near coastal structures in Lake Michigan: Characterization and assessment for warnings. Journal of Great Lakes Research, 2022, 48, 645-658.	0.8	2
83	Non-Hydrostatic Modeling of Vegetation Effects on Wave and Flow Motions. , 2008, , .		1
84	Elastic and Electromagnetic Wave-Based Techniques for Bottom and Subbottom Profiling in Shallow Waters. , 2008, , .		1
85	Water Exclosure Treatment System (WETS): An innovative device for minimizing beach closures. Science of the Total Environment, 2018, 625, 809-818.	3.9	1
86	Using a nowcasting system to better understand lake water dynamics. Lakes and Reservoirs: Research and Management, 2018, 23, 367-380.	0.6	1
87	An analysis of measurement from a 3D oceanic wave field. , 2009, , .		1
88	What Do We Not Know About Freaque Waves in the Ocean and Lakes and Where to Go From Here. , 2012, , .		1
89	A Fully Non-hydrostatic Three-Dimensional Model with an Implicit Algorithm for Free-Surface Flows. , 2004, , 591.		0
90	Efficient Non-Hydrostatic Modeling for Free Surface Waves in Deep and Shallow Water. , 2009, , .		0