

# Chin H Wu

## List of Publications by Year in descending order

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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	Rip currents near coastal structures in Lake Michigan: Characterization and assessment for warnings. <i>Journal of Great Lakes Research</i> , 2022, 48, 645-658.	0.8	2
2	Drowning incidents and conditions due to hidden flash rips in Lake Michigan. <i>Science of the Total Environment</i> , 2022, 827, 154314.	3.9	4
3	Unexpected meteotsunamis prior to Typhoon Wipha and Typhoon Neoguri. <i>Natural Hazards</i> , 2021, 106, 1673-1686.	1.6	5
4	The Role of Non-Hydrostatic Effects in Nonlinear Dispersive Wave Modeling. <i>Water (Switzerland)</i> , 2020, 12, 3513.	1.2	2
5	Lifeguarding Operational Camera Kiosk System (LOCKS) for flash rip warning: Development and application. <i>Coastal Engineering</i> , 2019, 152, 103537.	1.7	11
6	Drivers and Management Implications of Long-Term Cisco Oxythermal Habitat Decline in Lake Mendota, WI. <i>Environmental Management</i> , 2019, 63, 396-407.	1.2	21
7	Temperature and Circulation Dynamics in a Small and Shallow Lake: Effects of Weak Stratification and Littoral Submerged Macrophytes. <i>Water (Switzerland)</i> , 2019, 11, 128.	1.2	12
8	Unexpected rip currents induced by a meteotsunami. <i>Scientific Reports</i> , 2019, 9, 2105.	1.6	37
9	Water Exlosure Treatment System (WETS): An innovative device for minimizing beach closures. <i>Science of the Total Environment</i> , 2018, 625, 809-818.	3.9	1
10	Modeling oxythermal stress for cool-water fishes in lakes using a cumulative dosage approach. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2018, 75, 1303-1312.	0.7	11
11	Using a nowcasting system to better understand lake water dynamics. <i>Lakes and Reservoirs: Research and Management</i> , 2018, 23, 367-380.	0.6	1
12	Development and application of a real-time water environment cyberinfrastructure for kayaker safety in the Apostle Islands, Lake Superior. <i>Journal of Great Lakes Research</i> , 2018, 44, 990-1001.	0.8	6
13	Role of Meteorologically Induced Water Level Oscillations on Bottom Shear Stress in Freshwater Estuaries in the Great Lakes. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 4970-4987.	1.0	12
14	Ice cover and thermal regime in a dimictic seepage lake under climate change. <i>Inland Waters</i> , 2018, 8, 381-398.	1.1	20
15	Effects of changing climate on ice cover in three morphometrically different lakes. <i>Hydrological Processes</i> , 2017, 31, 308-323.	1.1	47
16	Response of water temperatures and stratification to changing climate in three lakes with different morphometry. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 6253-6274.	1.9	112
17	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. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 1681-1702.	1.9	69
18	Diurnal Dynamics in a Small Shallow Lake under Spatially Nonuniform Wind and Weak Stratification. <i>Journal of Hydraulic Engineering</i> , 2016, 142, .	0.7	10

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19	Characterization and assessment of the meteotsunami hazard in northern Lake Michigan. Journal of Geophysical Research: Oceans, 2016, 121, 7141-7158.	1.0	29
20	Meteotsunamis in the Laurentian Great Lakes. Scientific Reports, 2016, 6, 37832.	1.6	43
21	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
22	Wave climatology in the Apostle Islands, Lake Superior. Journal of Geophysical Research: Oceans, 2015, 120, 4869-4890.	1.0	15
23	Reconstruction of a meteotsunami in Lake Erie on 27 May 2012: Roles of atmospheric conditions on hydrodynamic response in enclosed basins. Journal of Geophysical Research: Oceans, 2015, 120, 8020-8038.	1.0	41
24	Meteotsunami occurrences and causes in Lake Michigan. Journal of Geophysical Research: Oceans, 2015, 120, 8422-8438.	1.0	31
25	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
26	A new vertical coordinate system for a 3D unstructured-grid model. Ocean Modelling, 2015, 85, 16-31.	1.0	102
27	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
28	The Lake Michigan meteotsunamis of 1954 revisited. Natural Hazards, 2014, 74, 155-177.	1.6	33
29	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
30	An entropy-based surface velocity method for estuarine discharge measurement. Water Resources Research, 2014, 50, 6106-6128.	1.7	30
31	Observations of surface waves interacting with ice using stereo imaging. Journal of Geophysical Research: Oceans, 2014, 119, 3266-3284.	1.0	19
32	The Lake Michigan meteotsunamis of 1954 revisited. , 2014, , 155-177.		3
33	Response of bottom sediment stability after carp removal in a small lake. Annales De Limnologie, 2013, 49, 157-168.	0.6	7
34	Lake microbial communities are resilient after a whole-ecosystem disturbance. ISME Journal, 2012, 6, 2153-2167.	4.4	198
35	Development and Application of an Automated River-Estuary Discharge Imaging System. Journal of Hydraulic Engineering, 2012, 138, 327-339.	0.7	39
36	Lake-size dependency of wind shear and convection as controls on gas exchange. Geophysical Research Letters, 2012, 39, .	1.5	199

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37	Time-scale dependence in numerical simulations: Assessment of physical, chemical, and biological predictions in a stratified lake at temporal scales of hours to months. <i>Environmental Modelling and Software</i> , 2012, 35, 104-121.	1.9	55
38	What Do We Not Know About Freaque Waves in the Ocean and Lakes and Where to Go From Here. , 2012, , .		1
39	â€œGradual Entrainment Lake Inverterâ€•(GELI): A novel device for experimental lake mixing. <i>Limnology and Oceanography: Methods</i> , 2011, 9, 14-28.	1.0	9
40	Observed variability of Lake Superior pCO <sub>2</sub> . <i>Limnology and Oceanography</i> , 2011, 56, 775-786.	1.6	26
41	Resistance, resilience and recovery: aquatic bacterial dynamics after water column disturbance. <i>Environmental Microbiology</i> , 2011, 13, 2752-2767.	1.8	127
42	Flow measurement with multiâ€•instrumentation in a tidalâ€•affected river. <i>Water and Environment Journal</i> , 2011, 25, 563-572.	1.0	4
43	An efficient curvilinear nonâ€•hydrostatic model for simulating surface water waves. <i>International Journal for Numerical Methods in Fluids</i> , 2011, 66, 1093-1115.	0.9	22
44	Virtual wave gauges based upon stereo imaging for measuring surface wave characteristics. <i>Coastal Engineering</i> , 2011, 58, 305-316.	1.7	45
45	Derivation of lake mixing and stratification indices from high-resolution lake buoy data. <i>Environmental Modelling and Software</i> , 2011, 26, 1325-1336.	1.9	347
46	A <i>Ïƒ</i>-coordinate nonâ€•hydrostatic model with embedded Boussinesqâ€•typeâ€•like equations for modeling deepâ€•water waves. <i>International Journal for Numerical Methods in Fluids</i> , 2010, 63, 1448-1470.	0.9	7
47	General circulation of Lake Superior: Mean, variability, and trends from 1979 to 2006. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	88
48	Brief communication &quot;What do we know about freaque waves in the ocean and lakes and how do we know it?&quot;. <i>Natural Hazards and Earth System Sciences</i> , 2010, 10, 2191-2196.	1.5	4
49	An integrated acoustic and electromagnetic waveâ€•based technique to estimate subbottom sediment properties in a freshwater environment. <i>Near Surface Geophysics</i> , 2010, 8, 213-221.	0.6	10
50	Efficient Nonhydrostatic Modeling of Surface Waves from Deep to Shallow Water. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2010, 136, 104-118.	0.5	24
51	Nonhydrostatic Modeling of Nonlinear Deep-Water Wave Groups. <i>Journal of Engineering Mechanics - ASCE</i> , 2010, 136, 155-167.	1.6	11
52	Efficient Non-Hydrostatic Modeling for Free Surface Waves in Deep and Shallow Water. , 2009, , .		0
53	An efficient and accurate nonâ€•hydrostatic model with embedded Boussinesqâ€•type like equations for surface wave modeling. <i>International Journal for Numerical Methods in Fluids</i> , 2009, 60, 27-53.	0.9	18
54	Modeling the capacity of a novel flow-energy harvester. <i>Applied Mathematical Modelling</i> , 2009, 33, 2207-2217.	2.2	101

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55	Modeling diagnosis of suspended sediment transport in tidal estuarine system. Environmental Geology, 2009, 57, 1661.	1.2	10
56	Hydrologic and Water Quality Functions of a Disturbed Wetland in an Agricultural Setting. Journal of the American Water Resources Association, 2009, 45, 628-640.	1.0	8
57	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
58	A higher-order non-hydrostatic $\nabla f$ model for simulating non-linear refraction-diffraction of water waves. Coastal Engineering, 2009, 56, 919-930.	1.7	31
59	Simultaneous particle size and concentration measurements using a back-lighted particle imaging system. Flow Measurement and Instrumentation, 2009, 20, 189-199.	1.0	11
60	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
61	An analysis of measurement from a 3D oceanic wave field. , 2009, , .		1
62	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
63	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
64	Modelling effects of realignment of Keelung River, Taiwan. Proceedings of the Institution of Civil Engineers: Maritime Engineering, 2008, 161, 73-87.	1.4	7
65	Non-Hydrostatic Modeling of Vegetation Effects on Wave and Flow Motions. , 2008, , .		1
66	Evaluation of metabolism models for free-water dissolved oxygen methods in lakes. Limnology and Oceanography: Methods, 2008, 6, 454-465.	1.0	104
67	Elastic and Electromagnetic Wave-Based Techniques for Bottom and Subbottom Profiling in Shallow Waters. , 2008, , .		1
68	Wave Heights in a 4D Ocean Wave Field. , 2008, , .		2
69	Understanding Regional Change: A Comparison of Two Lake Districts. BioScience, 2007, 57, 323-335.	2.2	129
70	Numerical simulation of UV disinfection reactors: Evaluation of alternative turbulence models. Applied Mathematical Modelling, 2007, 31, 1753-1769.	2.2	54
71	A higher-order $\nabla f$ -coordinate non-hydrostatic model for nonlinear surface waves. Ocean Engineering, 2007, 34, 1357-1370.	1.9	34
72	Efficient non-hydrostatic modelling of surface waves interacting with structures. Applied Mathematical Modelling, 2007, 31, 687-699.	2.2	18

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73	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
74	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
75	Efficiency and Accuracy of Non-Hydrostatic Modeling of Free-Surface Flows. , 2006, , 434.		2
76	Automated trinocular stereo imaging system for three-dimensional surface wave measurements. Ocean Engineering, 2006, 33, 723-747.	1.9	95
77	A new efficient 3D non-hydrostatic free-surface flow model for simulating water wave motions. Ocean Engineering, 2006, 33, 587-609.	1.9	30
78	Fully Nonhydrostatic Modeling of Surface Waves. Journal of Engineering Mechanics - ASCE, 2006, 132, 447-456.	1.6	36
79	An automated image-based technique for tracking sequential surface wave profiles. Ocean Engineering, 2005, 32, 157-173.	1.9	23
80	Incipient breaking of unsteady waves on sheared currents. Physics of Fluids, 2005, 17, 082104.	1.6	32
81	Factors Controlling Rates of Bluff Recession at Two Sites on Lake Michigan. Journal of Great Lakes Research, 2005, 31, 306-321.	0.8	33
82	A Fully Non-hydrostatic Three-Dimensional Model with an Implicit Algorithm for Free-Surface Flows. , 2004, , 591.		0
83	Automated Sediment Erosion Testing System Using Digital Imaging. Journal of Hydraulic Engineering, 2004, 130, 771-782.	0.7	20
84	Richards Equation Model of a Rain Garden. Journal of Hydrologic Engineering - ASCE, 2004, 9, 219-225.	0.8	67
85	A two-dimensional vertical non-hydrostatic model with an implicit method for free-surface flows. International Journal for Numerical Methods in Fluids, 2004, 44, 811-835.	0.9	52
86	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
87	Laboratory measurements of limiting freak waves on currents. Journal of Geophysical Research, 2004, 109, .	3.3	66
88	Energy Dissipation of Unsteady Wave Breaking on Currents. Journal of Physical Oceanography, 2004, 34, 2288-2304.	0.7	21
89	Breaking criteria and energy losses for three-dimensional wave breaking. Journal of Geophysical Research, 2002, 107, 41-1.	3.3	90
90	A Comparison of Two- and Three-Dimensional Wave Breaking. Journal of Physical Oceanography, 1998, 28, 1496-1510.	0.7	50