

Jorg Imberger

List of Publications by Year in descending order

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125
papers

6,409
citations

71102

41
h-index

71685

76
g-index

127
all docs

127
docs citations

127
times ranked

3178
citing authors

#	ARTICLE	IF	CITATIONS
1	Unsteady natural convection in a rectangular cavity. <i>Journal of Fluid Mechanics</i> , 1980, 100, 65.	3.4	496
2	Modeling basin-scale internal waves in a stratified lake. <i>Limnology and Oceanography</i> , 2000, 45, 1603-1620.	3.1	316
3	Physical Limnology. <i>Advances in Applied Mechanics</i> , 1989, , 303-475.	2.3	312
4	The classification of Mixed-Layer Dynamics of Lakes of Small to Medium Size. <i>Journal of Physical Oceanography</i> , 1980, 10, 1104-1121.	1.7	238
5	Structure of bubble plumes in linearly stratified environments. <i>Journal of Fluid Mechanics</i> , 1993, 249, 35.	3.4	203
6	Convective motions in the sidearm of a small reservoir. <i>Limnology and Oceanography</i> , 1990, 35, 1676-1702.	3.1	196
7	A DYNAMIC RESERVOIR SIMULATION MODEL - DYRESM: 5. , 1981, , 310-361.		188
8	Modeling circulation in lakes: Spatial and temporal variations. <i>Limnology and Oceanography</i> , 2003, 48, 983-994.	3.1	150
9	A numerical simulation of the role of zooplankton in C, N and P cycling in Lake Kinneret, Israel. <i>Ecological Modelling</i> , 2006, 193, 412-436.	2.5	143
10	Seasonal evolution of the basin-scale internal wave field in a large stratified lake. <i>Limnology and Oceanography</i> , 2000, 45, 1621-1638.	3.1	139
11	Natural convection in a shallow cavity with differentially heated end walls. Part 3. Experimental results. <i>Journal of Fluid Mechanics</i> , 1974, 65, 247-260.	3.4	138
12	Characteristics of a surface buoyant jet. <i>Journal of Geophysical Research</i> , 1987, 92, 5435-5447.	3.3	131
13	Modeling the diurnal mixed layer. <i>Limnology and Oceanography</i> , 1986, 31, 533-556.	3.1	130
14	The initial response of a stratified lake to a surface shear stress. <i>Journal of Fluid Mechanics</i> , 1996, 312, 39-66.	3.4	121
15	Internal wave weather in a stratified lake. <i>Limnology and Oceanography</i> , 1998, 43, 1780-1795.	3.1	106
16	Measurements of diapycnal diffusivities in stratified fluids. <i>Journal of Fluid Mechanics</i> , 2001, 442, 267-291.	3.4	103
17	Mixing processes relevant to phytoplankton dynamics in lakes. <i>New Zealand Journal of Marine and Freshwater Research</i> , 1987, 21, 361-377.	2.0	102
18	Energetics of long internal gravity waves in large lakes. <i>Limnology and Oceanography</i> , 2001, 46, 1760-1773.	3.1	101

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19	Simulating the thermal dynamics of Lake Kinneret. <i>Ecological Modelling</i> , 2003, 162, 69-86.	2.5	94
20	Collie River Underflow into the Wellington Reservoir. <i>Journal of Hydraulic Engineering</i> , 1979, 105, 533-545.	0.2	94
21	Selective withdrawal from a finite rectangular tank. <i>Journal of Fluid Mechanics</i> , 1976, 78, 489-512.	3.4	93
22	Mixing and turbulent fluxes in the metalimnion of a stratified lake. <i>Limnology and Oceanography</i> , 2001, 46, 392-409.	3.1	91
23	Entrainment and Turbulence in Saline Underflow in Lake Ogawara. <i>Journal of Hydraulic Engineering</i> , 2001, 127, 937-948.	1.5	90
24	Matching Temperature and Conductivity Sensor Response Characteristics. <i>Journal of Physical Oceanography</i> , 1985, 15, 1557-1569.	1.7	84
25	Application of the Wigner-Ville Distribution to Temperature Gradient Microstructure: A New Technique to Study Small-Scale Variations. <i>Journal of Physical Oceanography</i> , 1986, 16, 1997-2012.	1.7	81
26	Energetic Bubble Plumes in Arbitrary Stratification. <i>Journal of Hydraulic Engineering</i> , 1993, 119, 680-703.	1.5	81
27	Basin-scale motion in stratified Upper Lake Constance. <i>Limnology and Oceanography</i> , 2004, 49, 919-933.	3.1	80
28	Turbulence and entrainment in a buoyant surface plume. <i>Journal of Geophysical Research</i> , 1989, 94, 12619-12636.	3.3	74
29	Determining Turbulent Kinetic Energy Dissipation from Batchelor Curve Fitting. <i>Journal of Atmospheric and Oceanic Technology</i> , 2001, 18, 100-113.	1.3	72
30	Modeling as a Tool for Nutrient Management in Lake Erie: a Hydrodynamics Study. <i>Journal of Great Lakes Research</i> , 2005, 31, 309-318.	1.9	70
31	Heat and turbulent kinetic energy budgets for surface layer cooling induced by the passage of Hurricane Frances (2004). <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	68
32	Experimental study of high-Rayleigh-number convection in a horizontal cavity with different end temperatures. <i>Journal of Fluid Mechanics</i> , 1981, 109, 283-299.	3.4	64
33	Generalizations of the Wedderburn number: Parameterizing upwelling in stratified lakes. <i>Limnology and Oceanography</i> , 2010, 55, 1377-1389.	3.1	63
34	Spatial structure of the dominant basin-scale internal waves in Lake Kinneret. <i>Limnology and Oceanography</i> , 2006, 51, 229-246.	3.1	60
35	Physical Properties of Turbulent Benthic Boundary Layers Generated by Internal Waves. <i>Journal of Hydraulic Engineering</i> , 2004, 130, 58-69.	1.5	58
36	Scaling analysis of coral reef systems: an approach to problems of scale. <i>Coral Reefs</i> , 1987, 5, 171-181.	2.2	55

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37	Horizontal structure and excitation of primary motions in a strongly stratified lake. <i>Limnology and Oceanography</i> , 2007, 52, 2641-2655.	3.1	54
38	The seasonal evolution of wind/internal wave resonance in Lake Kinneret. <i>Limnology and Oceanography</i> , 2003, 48, 2055-2061.	3.1	52
39	Mixing and flushing in the Persian Gulf (Arabian Gulf). <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	52
40	Horizontal transport and dispersion in the surface layer of a medium-sized lake. <i>Limnology and Oceanography</i> , 2003, 48, 971-982.	3.1	51
41	Anatomy of turbulence in thermally stratified lakes. <i>Limnology and Oceanography</i> , 2001, 46, 1158-1170.	3.1	49
42	Biogeochemical response to physical forcing in the water column of a warm monomictic lake. <i>Biogeochemistry</i> , 2002, 61, 291-307.	3.5	49
43	Axisymmetric Intrusive Gravity Currents in Linearly Stratified Fluids. <i>Journal of Hydraulic Engineering</i> , 1993, 119, 662-679.	1.5	41
44	Phytoplankton patchiness and their role in the modelled productivity of a large, seasonally stratified lake. <i>Ecological Modelling</i> , 2008, 218, 49-59.	2.5	41
45	Mixed layer dynamics in a lake exposed to a spatially variable wind field ¹ . <i>Limnology and Oceanography</i> , 1985, 30, 473-488.	3.1	40
46	Energy Partitioning and Horizontal Dispersion in a Stratified Rotating Lake*. <i>Journal of Physical Oceanography</i> , 2003, 33, 512-529.	1.7	40
47	Bed roughness induced entrainment in a high Richardson number underflow. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2006, 44, 725-738.	1.7	40
48	The effect of land clearing on rainfall and fresh water resources in Western Australia: a multi-functional sustainability analysis. <i>International Journal of Sustainable Development and World Ecology</i> , 2013, 20, 549-563.	5.9	38
49	Experimental study of double-diffusive instability in sidewall heating. <i>Journal of Fluid Mechanics</i> , 1991, 222, 565.	3.4	36
50	Pathways of multiple inflows into a stratified reservoir: Thomson Reservoir, Australia. <i>Advances in Water Resources</i> , 2011, 34, 551-561.	3.8	36
51	Two-dimensional sink flow of a stratified fluid contained in a duct. <i>Journal of Fluid Mechanics</i> , 1972, 53, 329-349.	3.4	35
52	Simulation of bubble plume destratification systems in reservoirs. <i>Aquatic Sciences</i> , 1989, 51, 3-18.	1.5	35
53	Reducing Numerical Diffusion Effects with Pycnocline Filter. <i>Journal of Hydraulic Engineering</i> , 2003, 129, 215-224.	1.5	35
54	Dynamics of a large tropical lake: Lake Maracaibo. <i>Aquatic Sciences</i> , 2005, 67, 337-349.	1.5	35

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55	On internal waves near the high-frequency limit in an enclosed basin. <i>Journal of Geophysical Research</i> , 2001, 106, 22465-22474.	3.3	34
56	Near-Field Dilution Characteristics of a Negatively Buoyant Hypersaline Jet Generated by a Desalination Plant. <i>Journal of Hydraulic Engineering</i> , 2011, 137, 57-65.	1.5	34
57	The evolution of internal waves in a rotating, stratified, circular basin and the influence of weakly nonlinear and nonhydrostatic accelerations. <i>Limnology and Oceanography</i> , 2008, 53, 2738-2748.	3.1	32
58	Coupling an Underflow Model to a Three-Dimensional Hydrodynamic Model. <i>Journal of Hydraulic Engineering</i> , 2003, 129, 748-757.	1.5	31
59	Modeling a Plunging Underflow. <i>Journal of Hydraulic Engineering</i> , 2004, 130, 1068-1076.	1.5	30
60	Exchange between littoral and pelagic waters in a stratified lake due to wind-induced motions: Lake Kinneret, Israel. <i>Hydrobiologia</i> , 2008, 603, 25-51.	2.0	29
61	Influence of Wind and Lake Morphometry on the Interaction between Two Rivers Entering a Stratified Lake. <i>Journal of Hydraulic Engineering</i> , 2008, 134, 1579-1589.	1.5	28
62	Mixing of an interflow into the ambient water of Lake Iseo. <i>Limnology and Oceanography</i> , 2013, 58, 579-592.	3.1	27
63	Effect of Long Internal Waves on the Quality of Water Withdrawn from a Stratified Reservoir. <i>Journal of Hydraulic Engineering</i> , 2006, 132, 1134-1145.	1.5	26
64	Using Impellers to Distribute Local Nutrient Loadings in a Stratified Lake: Lake Como, Italy. <i>Journal of Hydraulic Engineering</i> , 2009, 135, 564-574.	1.5	26
65	Using time scales to characterize phytoplankton assemblages in a deep subalpine lake during the thermal stratification period: Lake Iseo, Italy. <i>Water Resources Research</i> , 2016, 52, 1762-1780.	4.2	26
66	Horizontal transport induced by upwelling in a canyon-shaped reservoir. <i>Hydrobiologia</i> , 2007, 586, 343-355.	2.0	24
67	Nonlinear and weakly nonhydrostatic inviscid evolution of internal gravitational basin-scale waves in a large, deep lake: Lake Constance. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	24
68	Simple Curvilinear Method for Numerical Methods of Open Channels. <i>Journal of Hydraulic Engineering</i> , 2001, 127, 949-958.	1.5	23
69	Anatomy of turbulence in a narrow and strongly stratified estuary. <i>Journal of Geophysical Research</i> , 2002, 107, 7-1.	3.3	23
70	Dynamics of the benthic boundary layer in a strongly forced stratified lake. <i>Hydrobiologia</i> , 2006, 568, 217-233.	2.0	22
71	Time-Varying Underflow into a Continuous Stratification with Bottom Slope. <i>Journal of Hydraulic Engineering</i> , 2008, 134, 1191-1198.	1.5	22
72	Contributions of local knowledge to the physical limnology of Lake Como, Italy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 6441-6445.	7.1	22

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73	Coupled reservoir-river systems: Lessons from an integrated aquatic ecosystem assessment. <i>Journal of Environmental Management</i> , 2020, 260, 110107.	7.8	21
74	Variation of CO_2 in ocean surface water in response to the passage of a hurricane. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	19
75	A hydrostatic/non-hydrostatic grid-switching strategy for computing high-frequency, high wave number motions embedded in geophysical flows. <i>Environmental Modelling and Software</i> , 2009, 24, 473-488.	4.5	18
76	Influence of advection on scales of ecological studies in a coastal equilibrium flow. <i>Continental Shelf Research</i> , 2007, 27, 134-153.	1.8	16
77	Including drag and inertia in drifter modelling. <i>Environmental Modelling and Software</i> , 2008, 23, 714-728.	4.5	16
78	Influence of microscale turbulence on the phytoplankton of a temperate coastal embayment, Western Australia. <i>Estuarine, Coastal and Shelf Science</i> , 2014, 145, 80-95.	2.1	16
79	A hierarchical modelling framework for assessing physical and biochemical characteristics of a regulated river. <i>Ecological Modelling</i> , 2018, 368, 78-93.	2.5	16
80	Circulation and mixing in Lake Rotongaio and Lake Okaro under conditions of light to moderate winds: Preliminary results. <i>New Zealand Journal of Marine and Freshwater Research</i> , 1987, 21, 515-519.	2.0	15
81	Inclined gravity currents filling basins: the impact of peeling detrainment on transport and vertical structure. <i>Journal of Fluid Mechanics</i> , 2017, 820, 400-423.	3.4	15
82	Sidewall effects in a double diffusive system. <i>Journal of Geophysical Research</i> , 1987, 92, 6501-6514.	3.3	14
83	The temporal evolution of baroclinic basin-scale waves in a rotating circular basin. <i>Journal of Fluid Mechanics</i> , 2005, 523, 367-392.	3.4	14
84	Modifying the residence time and dilution capacity of a reservoir by altering internal flow paths. <i>International Journal of River Basin Management</i> , 2006, 4, 255-271.	2.7	14
85	Baroclinic geostrophic adjustment in a rotating circular basin. <i>Journal of Fluid Mechanics</i> , 2004, 515, 63-86.	3.4	13
86	Diapycnal Mixing in the Thermocline of Lakes: Estimations by Different Methods. <i>Environmental Fluid Mechanics</i> , 2006, 6, 227-240.	1.6	12
87	Relative Buoyancy Dominates Thermal-Like Flow Interaction along an Incline. <i>Journal of Hydraulic Engineering</i> , 2008, 134, 636-643.	1.5	12
88	Modeling the impact of natural and anthropogenic nutrient sources on phytoplankton dynamics in a shallow coastal domain, Western Australia. <i>Environmental Fluid Mechanics</i> , 2014, 14, 87-111.	1.6	12
89	Physical and biological controls of algal blooms in the Río de la Plata. <i>Environmental Fluid Mechanics</i> , 2014, 14, 1199-1228.	1.6	12
90	Downscaling Model Resolution to Illustrate the Internal Wave Field in a Small Stratified Lake. <i>Journal of Hydraulic Engineering</i> , 2007, 133, 1206-1218.	1.5	11

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91	Horizontal transport, mixing and retention in a large, shallow estuary: Río de la Plata. <i>Environmental Fluid Mechanics</i> , 2014, 14, 1173-1197.	1.6	11
92	Withdrawal of a stratified fluid from a vertical two-dimensional duct. <i>Journal of Fluid Mechanics</i> , 1975, 70, 321-332.	3.4	10
93	A line sink in a rotating stratified fluid. <i>Journal of Fluid Mechanics</i> , 1991, 233, 349-368.	3.4	10
94	Turbulence within inertia-buoyancy balanced axisymmetric intrusions. <i>Journal of Geophysical Research</i> , 1995, 100, 22649.	3.3	10
95	Modelling solitons under the hydrostatic and Boussinesq approximations. <i>International Journal for Numerical Methods in Fluids</i> , 2003, 43, 231-252.	1.6	10
96	The role of zooplankton in the ecological succession of plankton and benthic algae across a salinity gradient in the Shark Bay solar salt ponds. <i>Hydrobiologia</i> , 2009, 626, 111-128.	2.0	10
97	Wind Shielding Impacts on Water Quality in an Urban Reservoir. <i>Water Resources Management</i> , 2018, 32, 3549-3561.	3.9	10
98	Estimating in situ phytoplankton growth rates with a Lagrangian sampling strategy. <i>Limnology and Oceanography: Methods</i> , 2007, 5, 495-509.	2.0	9
99	Managing wastewater effluent to enhance aquatic receiving ecosystem productivity: A coastal lagoon in Western Australia. <i>Journal of Environmental Management</i> , 2012, 99, 52-60.	7.8	9
100	Vertical eddy diffusivity estimations in Swan river estuary. <i>Dynamics of Atmospheres and Oceans</i> , 2005, 39, 175-187.	1.8	8
101	The management of Lake Burragarang in a changing climate: The application of the Index of Sustainable Functionality. <i>Lake and Reservoir Management</i> , 2011, 27, 70-86.	1.3	8
102	Dynamics of a large tropical lake: Lake Maracaibo. <i>Aquatic Sciences</i> , 2005, 67, 337-349.	1.5	8
103	Effect of benthic boundary layer transport on the productivity of Mono Lake, California. <i>Saline Systems</i> , 2008, 4, 11.	2.0	7
104	Observed relationships between microstructure patches and the gradient Richardson number in a thermally stratified lake. <i>Environmental Fluid Mechanics</i> , 2013, 13, 205-226.	1.6	7
105	Inclined gravity currents filling basins: The influence of Reynolds number on entrainment into gravity currents. <i>Physics of Fluids</i> , 2015, 27, 096602.	4.0	7
106	Jet Discharge into a Stratified Reservoir. <i>Journal of Hydraulic Engineering</i> , 1975, 101, 1211-1220.	0.2	7
107	Radiation and energy budget dynamics associated with a floating photovoltaic system. <i>Water Research</i> , 2021, 206, 117745.	11.3	7
108	Withdrawal of a stratified fluid from a rotating channel. <i>Journal of Fluid Mechanics</i> , 1992, 235, 643.	3.4	6

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109	Thermistor Chain Data Assimilation to Improve Hydrodynamic Modeling Skill in Stratified Lakes and Reservoirs. <i>Journal of Hydraulic Engineering</i> , 2008, 134, 1123-1135.	1.5	6
110	A new pseudo three-dimensional hydrodynamic model with Lagrangian vertical mixing and Eulerian horizontal mass exchange. <i>Environmental Modelling and Software</i> , 2021, 143, 105099.	4.5	6
111	Downward propagating internal waves generated at the base of the surface layer of a stratified fluid. <i>Geophysical Research Letters</i> , 1994, 21, 361-364.	4.0	5
112	Anatomy of turbulence in a narrow and weakly stratified estuary. <i>Marine and Freshwater Research</i> , 2002, 53, 757.	1.3	5
113	Closure to "Turbulent Entrainment in Buoy Ant Jets and Plumes". <i>Journal of Hydraulic Engineering</i> , 1975, 101, 617-620.	0.2	5
114	Mixing in River Underflow. <i>Journal of Hydraulic Engineering</i> , 1987, 113, 697-715.	1.5	4
115	Axisymmetric selective withdrawal in a rotating stratified fluid. <i>Journal of Fluid Mechanics</i> , 1993, 249, 287.	3.4	4
116	A three-dimensional numerical model of the response of the Australian North West Shelf to tropical cyclones. <i>Journal of the Australian Mathematical Society Series B Applied Mathematics</i> , 1994, 36, 64-100.	0.2	4
117	Intertidal Motions within Deep Basin of Swan River Estuary. <i>Journal of Hydraulic Engineering</i> , 1997, 123, 863-873.	1.5	4
118	Evaluation of the intrusion generated by a submerged contact chamber of hypolimnetic oxygenator in a reservoir. <i>International Journal of River Basin Management</i> , 2009, 7, 415-422.	2.7	4
119	Benthic and interfacial mixing in a strongly-stratified estuary. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2011, 49, 791-798.	1.7	3
120	The influence of stratification on the ecological response of two Western Australian embayments to nutrient enrichment. , 1992, , 829-850.		3
121	Mitigating the effects of high biomass algal blooms on the drinking water intakes of the city of Buenos Aires, Argentina. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2014, 52, 705-719.	1.7	2
122	Evaluation of Management Scenarios for Controlling Eutrophication in a Shallow Tropical Urban Lake. <i>International Journal of Environmental Pollution and Remediation</i> , 0, , .	0.0	1
123	Dynamics of a Longitudinally Stratified Estuary. , 1977, , 3108.		0
124	Derivation of total diffuse attenuation coefficient from water column temperature data and meteorological water surface fluxes: A simple management tool. <i>International Journal of River Basin Management</i> , 2007, 5, 293-303.	2.7	0
125	<i>Environmental Hydraulics</i> . , 2013, , 273-304.		0