

Takuji Waseda

List of Publications by Year in descending order

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Version: 2024-02-01

108
papers

2,318
citations

236925

25
h-index

243625

44
g-index

111
all docs

111
docs citations

111
times ranked

1494
citing authors

#	ARTICLE	IF	CITATIONS
1	Laboratory observations of wave group evolution, including breaking effects. <i>Journal of Fluid Mechanics</i> , 1999, 378, 197-232.	3.4	226
2	Statistical Properties of Directional Ocean Waves: The Role of the Modulational Instability in the Formation of Extreme Events. <i>Physical Review Letters</i> , 2009, 102, 114502.	7.8	206
3	Evolution of a Random Directional Wave and Freak Wave Occurrence. <i>Journal of Physical Oceanography</i> , 2009, 39, 621-639.	1.7	130
4	Maximum steepness of oceanic waves: Field and laboratory experiments. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	90
5	Freakish sea state and swell-windsea coupling: Numerical study of the <i>Suwa</i>-<i>Maru</i> incident. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	74
6	M ₂ baroclinic tide variability modulated by the ocean circulation south of Japan. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 3681-3710.	2.6	61
7	Experimental study of the stability of deep-water wave trains including wind effects. <i>Journal of Fluid Mechanics</i> , 1999, 401, 55-84.	3.4	60
8	Excitation of rogue waves in a variable medium: An experimental study on the interaction of water waves and currents. <i>Physical Review E</i> , 2013, 87, 051201.	2.1	58
9	Rogue waves in opposing currents: an experimental study on deterministic and stochastic wave trains. <i>Journal of Fluid Mechanics</i> , 2015, 769, 277-297.	3.4	58
10	Anticyclonic eddies and Kuroshio Meander Formation. <i>Geophysical Research Letters</i> , 2001, 28, 2025-2028.	4.0	51
11	Internal solitary waves in a two-fluid system with a free surface. <i>Journal of Fluid Mechanics</i> , 2016, 804, 201-223.	3.4	49
12	Recent developments of ocean environmental description with focus on uncertainties. <i>Ocean Engineering</i> , 2014, 86, 26-46.	4.3	47
13	On the eddy-Kuroshio interaction: Meander formation process. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	43
14	Wave Breaking in Directional Fields. <i>Journal of Physical Oceanography</i> , 2011, 41, 145-156.	1.7	43
15	Correlated Increase of High Ocean Waves and Winds in the Ice-Free Waters of the Arctic Ocean. <i>Scientific Reports</i> , 2018, 8, 4489.	3.3	43
16	Waves and Swells in High Wind and Extreme Fetches, Measurements in the Southern Ocean. <i>Frontiers in Marine Science</i> , 2019, 6, .	2.5	39
17	Correlation of hydrodynamic features with LGA radar backscatter from breaking waves. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 1999, 37, 2442-2460.	6.3	38
18	Numerical Study on the Oyashio Water Pathways in the Kuroshio-Oyashio Confluence*. <i>Journal of Physical Oceanography</i> , 2004, 34, 1174-1196.	1.7	37

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19	Impact of the four-wave quasi-resonance on freak wave shapes in the ocean. <i>Ocean Dynamics</i> , 2019, 69, 101-121.	2.2	37
20	Experimental evidence of the modulation of a plane wave to oblique perturbations and generation of rogue waves in finite water depth. <i>Physics of Fluids</i> , 2013, 25, .	4.0	36
21	Enhanced freak wave occurrence with narrow directional spectrum in the North Sea. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	32
22	On the eddy-Kuroshio interaction: Evolution of the mesoscale eddy. <i>Journal of Geophysical Research</i> , 2002, 107, 3-1.	3.3	28
23	Current-Induced Modulation of the Ocean Wave Spectrum and the Role of Nonlinear Energy Transfer. <i>Journal of Physical Oceanography</i> , 2008, 38, 2662-2684.	1.7	28
24	Freakish sea index and sea states during ship accidents. <i>Journal of Marine Science and Technology</i> , 2012, 17, 305-314.	2.9	27
25	Preparing for the Future Nankai Trough Tsunami: A Data Assimilation and Inversion Analysis From Various Observational Systems. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 7924-7937.	2.6	26
26	Deep water observations of extreme waves with moored and free GPS buoys. <i>Ocean Dynamics</i> , 2014, 64, 1269-1280.	2.2	25
27	Open and coastal seas interactions south of Japan represented by an ensemble Kalman filter. <i>Ocean Dynamics</i> , 2012, 62, 645-659.	2.2	23
28	Interplay of Resonant and Quasi-Resonant Interaction of the Directional Ocean Waves. <i>Journal of Physical Oceanography</i> , 2009, 39, 2351-2362.	1.7	22
29	Third-order resonant wave interactions under the influence of background current fields. <i>Journal of Fluid Mechanics</i> , 2015, 784, 51-73.	3.4	22
30	Indo-China Monsoon Indices. <i>Scientific Reports</i> , 2015, 5, 8107.	3.3	22
31	On recording sea surface elevation with accelerometer buoys: lessons from ITOP (2010). <i>Ocean Dynamics</i> , 2014, 64, 895-904.	2.2	21
32	Generation of a spatially periodic directional wave field in a rectangular wave basin based on higher-order spectral simulation. <i>Ocean Engineering</i> , 2018, 169, 428-441.	4.3	20
33	Uncertainties in long-term wave modelling. <i>Marine Structures</i> , 2022, 84, 103217.	3.8	20
34	Satellite-retrieved sea ice concentration uncertainty and its effect on modelling wave evolution in marginal ice zones. <i>Cryosphere</i> , 2020, 14, 2029-2052.	3.9	19
35	Assessment of GNSS-based height data of multiple ships for measuring and forecasting great tsunamis. <i>Geoscience Letters</i> , 2016, 3, .	3.3	18
36	Measuring offshore tsunami currents using ship navigation records. <i>Progress in Earth and Planetary Science</i> , 2018, 5, .	3.0	18

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37	Record high Pacific Arctic seawater temperatures and delayed sea ice advance in response to episodic atmospheric blocking. <i>Scientific Reports</i> , 2020, 10, 20830.	3.3	18
38	Adjustment of Wind Waves to Sudden Changes of Wind Speed. <i>Journal of Oceanography</i> , 2001, 57, 519-533.	1.7	17
39	Chaotic Advection of the Shallow Kuroshio Coastal Waters. <i>Journal of Oceanography</i> , 2002, 58, 627-638.	1.7	17
40	Predictability of storm wave heights in the ice-free Beaufort Sea. <i>Ocean Dynamics</i> , 2018, 68, 1383-1402.	2.2	17
41	Development of waves under explosive cyclones in the Northwestern Pacific. <i>Ocean Dynamics</i> , 2018, 68, 1403-1418.	2.2	17
42	Drifting breathers and Fermiâ€Pastaâ€Ulam paradox for water waves. <i>Wave Motion</i> , 2019, 90, 168-174.	2.0	17
43	Directional soliton and breather beams. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 9759-9763.	7.1	17
44	OpenMetBuoy-v2021: An Easy-to-Build, Affordable, Customizable, Open-Source Instrument for Oceanographic Measurements of Drift and Waves in Sea Ice and the Open Ocean. <i>Geosciences (Switzerland)</i> , 2022, 12, 110.	2.2	17
45	Observation of on-ice wind waves under grease ice in the western Arctic Ocean. <i>Polar Science</i> , 2021, 27, 100567.	1.2	16
46	Wave dispersion and dissipation in landfast ice: comparison of observations against models. <i>Cryosphere</i> , 2021, 15, 5557-5575.	3.9	16
47	Wind Wave Growth at Short Fetch. <i>Journal of Physical Oceanography</i> , 2008, 38, 1597-1606.	1.7	15
48	Impact of nonlinear energy transfer on the wave field in Pacific hindcast experiments. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	15
49	Data Assimilation of the High-Resolution Sea Surface Temperature Obtained from the Aqua-Terra Satellites (MODIS-SST) Using an Ensemble Kalman Filter. <i>Remote Sensing</i> , 2013, 5, 3123-3139.	4.0	15
50	Measurements of the Doppler spectra of breaking waves. <i>IET Radar, Sonar and Navigation</i> , 2007, 1, 149.	1.8	14
51	Wave turbulence and intermittency in directional wave fields. <i>Wave Motion</i> , 2018, 83, 94-101.	2.0	14
52	Predicting freakish sea state with an operational third-generation wave model. <i>Natural Hazards and Earth System Sciences</i> , 2014, 14, 945-957.	3.6	13
53	Extreme value estimation using the likelihood-weighted method. <i>Ocean Engineering</i> , 2016, 124, 241-251.	4.3	12
54	Experiments on higher-order and degenerate Akhmediev breather-type rogue water waves. <i>Journal of Ocean Engineering and Marine Energy</i> , 2017, 3, 385-394.	1.7	12

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55	Experimental and numerical investigations of temporally and spatially periodic modulated wave trains. <i>Physics of Fluids</i> , 2018, 30, 034101.	4.0	12
56	Temporal variation of modulated-wave-train geometries and their influence on vertical bending moments of a container ship. <i>Applied Ocean Research</i> , 2019, 86, 128-140.	4.1	12
57	A high-resolution, long-term wave resource assessment of Japan with waveâ€™current effects. <i>Renewable Energy</i> , 2020, 161, 1341-1358.	8.9	12
58	Advanced tsunami detection and forecasting by radar on unconventional airborne observing platforms. <i>Scientific Reports</i> , 2020, 10, 2412.	3.3	12
59	Error Estimation Using Wavelet Analysis for Data Assimilation: EEWADi*. <i>Journal of Atmospheric and Oceanic Technology</i> , 2000, 17, 1235-1246.	1.3	11
60	Blocking of the Kuroshio Large Meander by Baroclinic Interaction with the Izu Ridge. <i>Journal of Physical Oceanography</i> , 2006, 36, 2042-2059.	1.7	11
61	Laboratory Experiments on the Effects of a Variable Current Field on the Spectral Geometry of Water Waves. <i>Journal of Physical Oceanography</i> , 2016, 46, 2695-2717.	1.7	11
62	Fourier amplitude distribution and intermittency in mechanically generated surface gravity waves. <i>Physical Review E</i> , 2020, 102, 013106.	2.1	11
63	Climatic trends of extreme wave events caused by Arctic Cyclones in the western Arctic Ocean. <i>Polar Science</i> , 2021, 27, 100625.	1.2	11
64	Ensemble-Based Variational Method for Nonlinear Inversion of Surface Gravity Waves. <i>Journal of Atmospheric and Oceanic Technology</i> , 2020, 37, 17-31.	1.3	9
65	Statistical model representing storm avoidance by merchant ships in the North Atlantic Ocean. <i>Ocean Engineering</i> , 2021, 235, 109163.	4.3	9
66	Decadal Vision in Oceanography (I). <i>Oceanography in Japan</i> , 2013, 22, 191-218.	0.5	8
67	3D Stereo Imaging of Abnormal Waves in a Wave Basin. , 2015, , .		7
68	Significance of High-Frequency Wind Forcing in Modelling the Kuroshio. <i>Journal of Oceanography</i> , 2005, 61, 539-548.	1.7	6
69	Scale Utilization and Optimization from Wavelet Analysis for Data Assimilation: SUGOiWADi. <i>Journal of Atmospheric and Oceanic Technology</i> , 2002, 19, 747-758.	1.3	5
70	Tidally generated island wakes and surface water cooling over Izu Ridge. <i>Ocean Dynamics</i> , 2019, 69, 1373-1385.	2.2	5
71	On the Asymmetric Spectral Broadening of a Hydrodynamic Modulated Wave Train in the Optical Regime. <i>Fluids</i> , 2019, 4, 84.	1.7	5
72	On the coagulated pancake ice formation: Observation in the refreezing Chukchi Sea and comparison to the Antarctic consolidated pancake ice. <i>Polar Science</i> , 2021, 27, 100622.	1.2	5

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73	Assessment of Data-Inherited Uncertainty in Extreme Wave Analysis. Journal of Offshore Mechanics and Arctic Engineering, 2020, 142, .	1.2	5
74	Nonlinear interaction of the Tsugaru Warm Current and tide in the Tsugaru Strait. Ocean Dynamics, 2012, 62, 923-941.	2.2	4
75	ADCP measurements of ocean currents near Miyake Island. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2014, 20, 147-155.	0.2	4
76	A simple spatial model for extreme tropical cyclone seas. Ocean Engineering, 2018, 169, 315-325.	4.3	4
77	A parameter quantifying radiation damping of bay oscillations excited by incident tsunamis. Continental Shelf Research, 2018, 157, 10-19.	1.8	4
78	Experimental Realization of Periodic Deep-Water Wave Envelopes with and without Dissipation. Water Waves, 2020, 2, 113-122.	1.0	4
79	Assessment of wave energy resources and their associated uncertainties for two coastal areas in Japan. Journal of Marine Science and Technology, 2021, 26, 917-930.	2.9	4
80	Directional Coherent Wave Group From an Assimilated Non-linear Wavefield. Frontiers in Physics, 2021, 9, .	2.1	4
81	Electromagnetic scattering from wind blown waves and ripples modulated by longer waves under laboratory conditions. IET Radar, Sonar and Navigation, 2010, 4, 265.	1.8	3
82	On the Generation of Spatially Periodic Breather in a Wave Tank. , 2013, , .		3
83	Nonlinear internal waves generated and trapped upstream of islands in the Kuroshio. Geophysical Research Letters, 2014, 41, 5091-5098.	4.0	3
84	On the Aleatory and Epistemic Uncertainty of the Wave Resource Assessment in the North West Pacific. , 2014, , .		3
85	Marine Energy Resource Assessment at Reconnaissance to Feasibility Study Stages. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2016, 23, 189-198.	0.2	3
86	Observation of sea surface height using airborne radar altimetry: a new approach for large offshore tsunami detection. Journal of Oceanography, 2019, 75, 541-558.	1.7	3
87	Modulational Instability in Directional Wave Fields, and Extreme Wave Events. , 2011, , .		3
88	Phase-suppressed hydrodynamics of solitons on constant-background plane wave. Physical Review Fluids, 2020, 5, .	2.5	3
89	Title is missing!. Journal of Oceanography, 2003, 59, 187-200.	1.7	2
90	The Impact of the Winter Monsoon on Marine Surface-Layer Turbulence. Boundary-Layer Meteorology, 2015, 157, 141-156.	2.3	2

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91	Benchmark for the Sources of Uncertainty in Extreme Wave Analysis. , 2018, , .		2
92	The Impact of Winter Northwest Monsoon on Gust Factor. , 2013, , .		2
93	Diffraction and Instability of Short-Crested Limited-Length One-Dimensional Coherent Wave Trains. , 2015, , .		2
94	Freak Wave Generation in a Wave Basin With HOSM-WG Method. , 2015, , .		2
95	Improving Resource Assessment of Wave Power Based on Spectral Wave Model. , 2014, , .		1
96	Utilization of current information for Ocean Current Turbine design. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2015, 22, 207-215.	0.2	1
97	Modulation Instability and Extreme Events Beyond Initial Three Wave Systems. , 2016, , .		1
98	Measurement of spatial wave profiles and particle velocities on a wave surface by stereo imaging â€œvalidation with unidirectional regular wavesâ€œ. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2017, 25, 93-102.	0.2	1
99	Confidence Interval of 3 Parameter Weibull Distribution in Extreme Value Estimation. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2013, 18, 135-142.	0.2	1
100	Role of Nonlinear Energy Transfer on Wave spectrum in the Equilibrium Range. Journal of Japan Society of Civil Engineers Ser B2 (Coastal Engineering), 2013, 69, 1_121-1_125.	0.4	1
101	Extracting clearer tsunami currents from shipborne Automatic Identification System data using ship yaw and equation of ship response. Earth, Planets and Space, 2020, 72, .	2.5	1
102	Wave Energy in the Pacific Island Countries: A New Integrative Conceptual Framework for Potential Challenges in Harnessing Wave Energy. Energies, 2022, 15, 2606.	3.1	1
103	Nonlinear Effects on Local Mechanics of Freak Waves. , 2015, , .		0
104	Large Tank Evaluation of a GPS Wave Buoy for Wind Stress Measurements. Journal of Atmospheric and Oceanic Technology, 2017, 34, 1225-1234.	1.3	0
105	The long-term fluctuation of tides and the effect on resource assessment of tidal current energy around Japan. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2017, 25, 151-156.	0.2	0
106	Drifting Rogue Packets. , 2018, , .		0
107	Validation of the downscaling method for the high-accuracy wind map. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2013, 17, 159-167.	0.2	0
108	Extreme Waves. Journal of Marine Science and Engineering, 2022, 10, 697.	2.6	0