

Takuji Waseda

List of Publications by Year in descending order

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108
papers

2,318
citations

236925

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111
all docs

111
docs citations

111
times ranked

1494
citing authors

#	ARTICLE	IF	CITATIONS
1	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. Geosciences (Switzerland), 2022, 12, 110.	2.2	17
2	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
3	Uncertainties in long-term wave modelling. Marine Structures, 2022, 84, 103217.	3.8	20
4	Extreme Waves. Journal of Marine Science and Engineering, 2022, 10, 697.	2.6	0
5	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
6	Climatic trends of extreme wave events caused by Arctic Cyclones in the western Arctic Ocean. Polar Science, 2021, 27, 100625.	1.2	11
7	On the coagulated pancake ice formation: Observation in the refreezing Chukchi Sea and comparison to the Antarctic consolidated pancake ice. Polar Science, 2021, 27, 100622.	1.2	5
8	Observation of on-ice wind waves under grease ice in the western Arctic Ocean. Polar Science, 2021, 27, 100567.	1.2	16
9	Directional Coherent Wave Group From an Assimilated Non-linear Wavefield. Frontiers in Physics, 2021, 9, .	2.1	4
10	Statistical model representing storm avoidance by merchant ships in the North Atlantic Ocean. Ocean Engineering, 2021, 235, 109163.	4.3	9
11	Wave dispersion and dissipation in landfast ice: comparison of observations against models. Cryosphere, 2021, 15, 5557-5575.	3.9	16
12	Experimental Realization of Periodic Deep-Water Wave Envelopes with and without Dissipation. Water Waves, 2020, 2, 113-122.	1.0	4
13	Ensemble-Based Variational Method for Nonlinear Inversion of Surface Gravity Waves. Journal of Atmospheric and Oceanic Technology, 2020, 37, 17-31.	1.3	9
14	Fourier amplitude distribution and intermittency in mechanically generated surface gravity waves. Physical Review E, 2020, 102, 013106.	2.1	11
15	Record high Pacific Arctic seawater temperatures and delayed sea ice advance in response to episodic atmospheric blocking. Scientific Reports, 2020, 10, 20830.	3.3	18
16	A high-resolution, long-term wave resource assessment of Japan with waveâ€™current effects. Renewable Energy, 2020, 161, 1341-1358.	8.9	12
17	Advanced tsunami detection and forecasting by radar on unconventional airborne observing platforms. Scientific Reports, 2020, 10, 2412.	3.3	12
18	Assessment of Data-Inherited Uncertainty in Extreme Wave Analysis. Journal of Offshore Mechanics and Arctic Engineering, 2020, 142, .	1.2	5

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19	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
20	Extracting clearer tsunami currents from shipborne Automatic Identification System data using ship yaw and equation of ship response. <i>Earth, Planets and Space</i> , 2020, 72, .	2.5	1
21	Phase-suppressed hydrodynamics of solitons on constant-background plane wave. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	3
22	Observation of sea surface height using airborne radar altimetry: a new approach for large offshore tsunami detection. <i>Journal of Oceanography</i> , 2019, 75, 541-558.	1.7	3
23	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
24	Tidally generated island wakes and surface water cooling over Izu Ridge. <i>Ocean Dynamics</i> , 2019, 69, 1373-1385.	2.2	5
25	On the Asymmetric Spectral Broadening of a Hydrodynamic Modulated Wave Train in the Optical Regime. <i>Fluids</i> , 2019, 4, 84.	1.7	5
26	Drifting breathers and Fermiâ€Pastaâ€Ulam paradox for water waves. <i>Wave Motion</i> , 2019, 90, 168-174.	2.0	17
27	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
28	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
29	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
30	Experimental and numerical investigations of temporally and spatially periodic modulated wave trains. <i>Physics of Fluids</i> , 2018, 30, 034101.	4.0	12
31	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
32	Measuring offshore tsunami currents using ship navigation records. <i>Progress in Earth and Planetary Science</i> , 2018, 5, .	3.0	18
33	Benchmark for the Sources of Uncertainty in Extreme Wave Analysis. , 2018, , .		2
34	Predictability of storm wave heights in the ice-free Beaufort Sea. <i>Ocean Dynamics</i> , 2018, 68, 1383-1402.	2.2	17
35	Drifting Rogue Packets. , 2018, , .		0
36	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

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37	A simple spatial model for extreme tropical cyclone seas. Ocean Engineering, 2018, 169, 315-325.	4.3	4
38	Wave turbulence and intermittency in directional wave fields. Wave Motion, 2018, 83, 94-101.	2.0	14
39	A parameter quantifying radiation damping of bay oscillations excited by incident tsunamis. Continental Shelf Research, 2018, 157, 10-19.	1.8	4
40	Development of waves under explosive cyclones in the Northwestern Pacific. Ocean Dynamics, 2018, 68, 1403-1418.	2.2	17
41	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
42	Experiments on higher-order and degenerate Akhmediev breather-type rogue water waves. Journal of Ocean Engineering and Marine Energy, 2017, 3, 385-394.	1.7	12
43	Preparing for the Future Nankai Trough Tsunami: A Data Assimilation and Inversion Analysis From Various Observational Systems. Journal of Geophysical Research: Oceans, 2017, 122, 7924-7937.	2.6	26
44	Measurement of spatial wave profiles and particle velocities on a wave surface by stereo imaging –validation with unidirectional regular waves–. Journal of the Japan Society of Naval Architects and Ocean Engineers, 2017, 25, 93-102.	0.2	1
45	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
46	Internal solitary waves in a two-fluid system with a free surface. Journal of Fluid Mechanics, 2016, 804, 201-223.	3.4	49
47	Extreme value estimation using the likelihood-weighted method. Ocean Engineering, 2016, 124, 241-251.	4.3	12
48	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
49	Modulation Instability and Extreme Events Beyond Initial Three Wave Systems. , 2016, , .		1
50	Assessment of GNSS-based height data of multiple ships for measuring and forecasting great tsunamis. Geoscience Letters, 2016, 3, .	3.3	18
51	Laboratory Experiments on the Effects of a Variable Current Field on the Spectral Geometry of Water Waves. Journal of Physical Oceanography, 2016, 46, 2695-2717.	1.7	11
52	Rogue waves in opposing currents: an experimental study on deterministic and stochastic wave trains. Journal of Fluid Mechanics, 2015, 769, 277-297.	3.4	58
53	Third-order resonant wave interactions under the influence of background current fields. Journal of Fluid Mechanics, 2015, 784, 51-73.	3.4	22
54	M ₂ baroclinic tide variability modulated by the ocean circulation south of Japan. Journal of Geophysical Research: Oceans, 2015, 120, 3681-3710.	2.6	61

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55	3D Stereo Imaging of Abnormal Waves in a Wave Basin. , 2015, , .		7
56	Nonlinear Effects on Local Mechanics of Freak Waves. , 2015, , .		0
57	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
58	Indo-China Monsoon Indices. Scientific Reports, 2015, 5, 8107.	3.3	22
59	The Impact of the Winter Monsoon on Marine Surface-Layer Turbulence. Boundary-Layer Meteorology, 2015, 157, 141-156.	2.3	2
60	Diffraction and Instability of Short-Crested Limited-Length One-Dimensional Coherent Wave Trains. , 2015, , .		2
61	Freak Wave Generation in a Wave Basin With HOSM-WG Method. , 2015, , .		2
62	Predicting freakish sea state with an operational third-generation wave model. Natural Hazards and Earth System Sciences, 2014, 14, 945-957.	3.6	13
63	Improving Resource Assessment of Wave Power Based on Spectral Wave Model. , 2014, , .		1
64	Nonlinear internal waves generated and trapped upstream of islands in the Kuroshio. Geophysical Research Letters, 2014, 41, 5091-5098.	4.0	3
65	Deep water observations of extreme waves with moored and free GPS buoys. Ocean Dynamics, 2014, 64, 1269-1280.	2.2	25
66	On recording sea surface elevation with accelerometer buoys: lessons from ITOP (2010). Ocean Dynamics, 2014, 64, 895-904.	2.2	21
67	Recent developments of ocean environmental description with focus on uncertainties. Ocean Engineering, 2014, 86, 26-46.	4.3	47
68	On the Aleatory and Epistemic Uncertainty of the Wave Resource Assessment in the North West Pacific. , 2014, , .		3
69	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
70	Excitation of rogue waves in a variable medium: An experimental study on the interaction of water waves and currents. Physical Review E, 2013, 87, 051201.	2.1	58
71	Experimental evidence of the modulation of a plane wave to oblique perturbations and generation of rogue waves in finite water depth. Physics of Fluids, 2013, 25, .	4.0	36
72	On the Generation of Spatially Periodic Breather in a Wave Tank. , 2013, , .		3

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73	Decadal Vision in Oceanography (I). Oceanography in Japan, 2013, 22, 191-218.	0.5	8
74	Data Assimilation of the High-Resolution Sea Surface Temperature Obtained from the Aqua-Terra Satellites (MODIS-SST) Using an Ensemble Kalman Filter. Remote Sensing, 2013, 5, 3123-3139.	4.0	15
75	The Impact of Winter Northwest Monsoon on Gust Factor. , 2013, , .		2
76	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
77	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
78	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
79	Freakish sea index and sea states during ship accidents. Journal of Marine Science and Technology, 2012, 17, 305-314.	2.9	27
80	Open and coastal seas interactions south of Japan represented by an ensemble Kalman filter. Ocean Dynamics, 2012, 62, 645-659.	2.2	23
81	Nonlinear interaction of the Tsugaru Warm Current and tide in the Tsugaru Strait. Ocean Dynamics, 2012, 62, 923-941.	2.2	4
82	Enhanced freak wave occurrence with narrow directional spectrum in the North Sea. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	32
83	Wave Breaking in Directional Fields. Journal of Physical Oceanography, 2011, 41, 145-156.	1.7	43
84	Modulational Instability in Directional Wave Fields, and Extreme Wave Events. , 2011, , .		3
85	Maximum steepness of oceanic waves: Field and laboratory experiments. Geophysical Research Letters, 2010, 37, .	4.0	90
86	Impact of nonlinear energy transfer on the wave field in Pacific hindcast experiments. Journal of Geophysical Research, 2010, 115, .	3.3	15
87	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
88	Statistical Properties of Directional Ocean Waves: The Role of the Modulational Instability in the Formation of Extreme Events. Physical Review Letters, 2009, 102, 114502.	7.8	206
89	Interplay of Resonant and Quasi-Resonant Interaction of the Directional Ocean Waves. Journal of Physical Oceanography, 2009, 39, 2351-2362.	1.7	22
90	Evolution of a Random Directional Wave and Freak Wave Occurrence. Journal of Physical Oceanography, 2009, 39, 621-639.	1.7	130

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91	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
92	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
93	Wind Wave Growth at Short Fetch. <i>Journal of Physical Oceanography</i> , 2008, 38, 1597-1606.	1.7	15
94	Measurements of the Doppler spectra of breaking waves. <i>IET Radar, Sonar and Navigation</i> , 2007, 1, 149.	1.8	14
95	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
96	Significance of High-Frequency Wind Forcing in Modelling the Kuroshio. <i>Journal of Oceanography</i> , 2005, 61, 539-548.	1.7	6
97	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
98	Title is missing!. <i>Journal of Oceanography</i> , 2003, 59, 187-200.	1.7	2
99	On the eddy-Kuroshio interaction: Meander formation process. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	43
100	Scale Utilization and Optimization from Wavelet Analysis for Data Assimilation: SUGOIWADAI. <i>Journal of Atmospheric and Oceanic Technology</i> , 2002, 19, 747-758.	1.3	5
101	On the eddy-Kuroshio interaction: Evolution of the mesoscale eddy. <i>Journal of Geophysical Research</i> , 2002, 107, 3-1.	3.3	28
102	Chaotic Advection of the Shallow Kuroshio Coastal Waters. <i>Journal of Oceanography</i> , 2002, 58, 627-638.	1.7	17
103	Anticyclonic eddies and Kuroshio Meander Formation. <i>Geophysical Research Letters</i> , 2001, 28, 2025-2028.	4.0	51
104	Adjustment of Wind Waves to Sudden Changes of Wind Speed. <i>Journal of Oceanography</i> , 2001, 57, 519-533.	1.7	17
105	Error Estimation Using Wavelet Analysis for Data Assimilation: EEWADAI*. <i>Journal of Atmospheric and Oceanic Technology</i> , 2000, 17, 1235-1246.	1.3	11
106	Laboratory observations of wave group evolution, including breaking effects. <i>Journal of Fluid Mechanics</i> , 1999, 378, 197-232.	3.4	226
107	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
108	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