Jim Thomson

List of Publications by Year
in descending order

111 papers	3,306 citations	147801 31 h-index	189892 50 g-index
125 all docs	125 docs citations	125 times ranked	2751 citing authors

#	Article	IF	Citations
1	Swell and sea in the emerging Arctic Ocean. Geophysical Research Letters, 2014, 41, 3136-3140.	4.0	225
2	Measurements of Turbulence at Two Tidal Energy Sites in Puget Sound, WA. IEEE Journal of Oceanic Engineering, 2012, 37, 363-374.	3.8	190
3	Wave Breaking Dissipation Observed with â€œSWIFTâ€•Drifters. Journal of Atmospheric and Oceanic Technology, 2012, 29, 1866-1882.	1.3	140
4	Quantifying upper ocean turbulence driven by surface waves. Geophysical Research Letters, 2014, 41, 102-107.	4.0	98
5	Dissipation of wind waves by pancake and frazil ice in the autumn Beaufort Sea. Journal of Geophysical Research: Oceans, 2016, 121, 7991-8007.	2.6	96
6	Overview of the Arctic Sea State and Boundary Layer Physics Program. Journal of Geophysical Research: Oceans, 2018, 123, 8674-8687.	2.6	96
7	Tidal modulation of infragravity waves via nonlinear energy losses in the surfzone. Geophysical Research Letters, 2006, 33, .	4.0	90
8	Emerging trends in the sea state of the Beaufort and Chukchi seas. Ocean Modelling, 2016, 105, 1-12.	2.4	78
9	Calibrating a Viscoelastic Sea Ice Model for Wave Propagation in the Arctic Fall Marginal Ice Zone. Journal of Geophysical Research: Oceans, 2017, 122, 8770-8793.	2.6	73
10	Turbulence Measurements from Five-Beam Acoustic Doppler Current Profilers. Journal of Atmospheric and Oceanic Technology, 2017, 34, 1267-1284.	1.3	70
11	A vessel noise budget for Admiralty Inlet, Puget Sound, Washington (USA). Journal of the Acoustical Society of America, 2012, 132, 3706-3719.	1.1	59
12	Waves and the equilibrium range at Ocean Weather Station P. Journal of Geophysical Research: Oceans, 2013, 118, 5951-5962.	2.6	55
13	Tidal energy resource characterization: methodology and field study in Admiralty Inlet, Puget Sound, WA (USA). Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2013, 227, 352-367.	1.4	51
14	Measuring ocean waves in sea ice using SAR imagery: A quasi-deterministic approach evaluated with Sentinel-1 and in situ data. Remote Sensing of Environment, 2017, 189, 211-222.	11.0	50
15	Characterization of turbulence anisotropy, coherence, and intermittency at a prospective tidal energy site: Observational data analysis. Renewable Energy, 2015, 76, 441-453.	8.9	49
16	Wave Breaking Dissipation in a Young Wind Sea. Journal of Physical Oceanography, 2014, 44, 104-127.	1.7	47
17	Wave-Breaking Turbulence in the Ocean Surface Layer. Journal of Physical Oceanography, 2016, 46, 1857-1870.	1.7	47
18	Observations of whitecap coverage and the relation to wind stress, wave slope, and turbulent dissipation. Journal of Geophysical Research: Oceans, 2015, 120, 8346-8363.	2.6	44

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19	Wave Attenuation by Sea Ice Turbulence. Geophysical Research Letters, 2019, 46, 6796-6803.	4.0	42
20	Energy dissipation and the spectral distribution of whitecaps. Geophysical Research Letters, 2009, 36, .	4.0	41
21	Episodic Reversal of Autumn Ice Advance Caused by Release of Ocean Heat in the Beaufort Sea. Journal of Geophysical Research: Oceans, 2018, 123, 3164-3185.	2.6	41
22	Flow-noise and turbulence in two tidal channels. Journal of the Acoustical Society of America, 2014, 135, 1764-1774.	1.1	40
23	On the shape and likelihood of oceanic rogue waves. Scientific Reports, 2017, 7, 8276.	3.3	39
24	Measurements of Directional Wave Spectra and Wind Stress from a Wave Glider Autonomous Surface Vehicle. Journal of Atmospheric and Oceanic Technology, 2018, 35, 347-363.	1.3	39
25	Waves and Swells in High Wind and Extreme Fetches, Measurements in the Southern Ocean. Frontiers in Marine Science, 2019, 6, .	2.5	39
26	An Autonomous Approach to Observing the Seasonal Ice Zone in the Western Arctic. Oceanography, 2017, 30, 56-68.	1.0	38
27	Attenuation and Directional Spreading of Ocean Waves During a Storm Event in the Autumn Beaufort Sea Marginal Ice Zone. Journal of Geophysical Research: Oceans, 2018, 123, 5912-5932.	2.6	38
28	Baroclinic instability of time-dependent currents. Journal of Fluid Mechanics, 2003, 490, 189-215.	3.4	36
29	Surface wave breaking over sheared currents: Observations from the <scp>M</scp>outh of the <scp>C</scp>olumbia <scp>R</scp>iver. Journal of Geophysical Research: Oceans, 2017, 122, 3311-3328.	2.6	34
30	Tidal energy resource characterization in Chacao Channel, Chile. International Journal of Marine Energy, 2017, 20, 1-16.	1.8	34
31	Noise correction of turbulent spectra obtained from acoustic doppler velocimeters. Flow Measurement and Instrumentation, 2014, 37, 29-41.	2.0	33
32	Wave Attenuation Through an Arctic Marginal Ice Zone on 12 October 2015: 1. Measurement of Wave Spectra and Ice Features From Sentinel 1A. Journal of Geophysical Research: Oceans, 2018, 123, 3619-3634.	2.6	32
33	Sedimentâ€generated noise and bed stress in a tidal channel. Journal of Geophysical Research: Oceans, 2013, 118, 2249-2265.	2.6	30
34	Estimating wave energy dissipation in the surf zone using thermal infrared imagery. Journal of Geophysical Research: Oceans, 2015, 120, 3937-3957.	2.6	30
35	Arctic Sea Ice Drift Measured by Shipboard Marine Radar. Journal of Geophysical Research: Oceans, 2018, 123, 4298-4321.	2.6	30
36	Frazil ice growth and production during katabatic wind events in the Ross Sea, Antarctica. Cryosphere, 2020, 14, 3329-3347.	3.9	30

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37	Quantifying turbulence for tidal power applications. , 2010, , .		29
38	A Horizon-Tracking Method for Shipboard Video Stabilization and Rectification. Journal of Atmospheric and Oceanic Technology, 2015, 32, 164-176.	1.3	29
39	Observations of the shape and group dynamics of rogue waves. Geophysical Research Letters, 2017, 44, 1823-1830.	4.0	29
40	Wave Attenuation Through an Arctic Marginal Ice Zone on 12 October 2015: 2. Numerical Modeling of Waves and Associated Ice Breakup. Journal of Geophysical Research: Oceans, 2018, 123, 5652-5668.	2.6	29
41	Measurements from the RV <i>Ronald H. Brown</i> and related platforms as part of the Atlantic Tradewind Ocean-Atmosphere Mesoscale Interaction Campaign (ATOMIC). Earth System Science Data, 2021, 13, 1759-1790.	9.9	28
42	Air-sea interactions in the marginal ice zone. Elementa, 2016, 4, .	3.2	28
43	Refraction and reflection of infragravity waves near submarine canyons. Journal of Geophysical Research, 2007, 112, .	3.3	27
44	Wind and wave influences on sea ice floe size and leads in the <scp>B</scp>eaufort and <scp>C</scp>hukchi <scp>S</scp>eas during the summerâ€fall transition 2014. Journal of Geophysical Research: Oceans, 2016, 121, 1502-1525.	2.6	27
45	Sharp-Crested Breaking Surface Waves Observed from a Ship-Based Stereo Video System. Journal of Physical Oceanography, 2017, 47, 775-792.	1.7	27
46	Spurious Rollover of Wave Attenuation Rates in Sea Ice Caused by Noise in Field Measurements. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016606.	2.6	25
47	A Unified Breaking Onset Criterion for Surface Gravity Water Waves in Arbitrary Depth. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015886.	2.6	25
48	Maximum wave heights from global model reanalysis. Progress in Oceanography, 2019, 175, 139-160.	3.2	24
49	Method for identification of Doppler noise levels in turbulent flow measurements dedicated to tidal energy. International Journal of Marine Energy, 2013, 3-4, 52-64.	1.8	23
50	Biofouling Effects on the Response of a Wave Measurement Buoy in Deep Water. Journal of Atmospheric and Oceanic Technology, 2015, 32, 1281-1286.	1.3	23
51	A Fourier-Based Method for the Distribution of Breaking Crests from Video Observations. Journal of Atmospheric and Oceanic Technology, 2009, 26, 1663-1671.	1.3	22
52	Wave breaking and turbulence at a tidal inlet. Journal of Geophysical Research: Oceans, 2015, 120, 1016-1031.	2.6	22
53	Hydrodynamic Coefficients of Heave Plates, With Application to Wave Energy Conversion. IEEE Journal of Oceanic Engineering, 2018, 43, 983-996.	3.8	22
54	Turbulence from Breaking Surface Waves at a River Mouth. Journal of Physical Oceanography, 2018, 48, 435-453.	1.7	22

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55	Ocean Surface Turbulence in Newly Formed Marginal Ice Zones. Journal of Geophysical Research: Oceans, 2019, 124, 1382-1398.	2.6	22
56	Site characterization for tidal power. , 2009, , .		21
57	Resource Mapping at Tidal Energy Sites. IEEE Journal of Oceanic Engineering, 2013, 38, 433-446.	3.8	21
58	Wave breaking turbulence at the offshore front of the Columbia River Plume. Geophysical Research Letters, 2014, 41, 8987-8993.	4.0	21
59	Observations of thermal diffusivity and a relation to the porosity of tidal flat sediments. Journal of Geophysical Research, 2010, 115, .	3.3	20
60	A warm jet in a cold ocean. Nature Communications, 2021, 12, 2418.	12.8	20
61	A surface kinematics buoy (SKIB) for waveâ€“current interaction studies. Ocean Science, 2018, 14, 1449-1460.	3.4	19
62	Reflection and tunneling of ocean waves observed at a submarine canyon. Geophysical Research Letters, 2005, 32, .	4.0	18
63	Limits to the predictability of tidal current energy. , 2010, , .		18
64	The Influence of Wind and Waves on Spreading and Mixing in the Fraser River Plume. Journal of Geophysical Research: Oceans, 2018, 123, 6818-6840.	2.6	18
65	Comparing Observations and Parameterizations of Iceâ€Ocean Drag Through an Annual Cycle Across the Beaufort Sea. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016977.	2.6	18
66	Doppler Correction of Wave Frequency Spectra Measured by Underway Vessels. Journal of Atmospheric and Oceanic Technology, 2017, 34, 429-436.	1.3	17
67	Impact of swell on the wind-sea and resulting modulation of stress. Progress in Oceanography, 2019, 178, 102164.	3.2	17
68	Wake measurements from a hydrokinetic river turbine. Renewable Energy, 2019, 139, 483-495.	8.9	17
69	Spatial characteristics of ocean surface waves. Ocean Dynamics, 2016, 66, 1025-1035.	2.2	16
70	On the Ocean Wave Attenuation Rate in Greaseâ€Pancake Ice, a Comparison of Viscous Layer Propagation Models With Field Data. Journal of Geophysical Research: Oceans, 2018, 123, 5933-5948.	2.6	16
71	Pancake sea ice kinematics and dynamics using shipboard stereo video. Annals of Glaciology, 2020, 61, 1-11.	1.4	16
72	Turbulence Measurements from Compliant Moorings. Part II: Motion Correction. Journal of Atmospheric and Oceanic Technology, 2017, 34, 1249-1266.	1.3	15

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73	The Inner-Shelf Dynamics Experiment. Bulletin of the American Meteorological Society, 2021, 102, E1033-E1063.	3.3	15
74	Predicting lightning-driven quasi-electrostatic fields at sprite altitudes using in situ measurements and a numerical model. Geophysical Research Letters, 2005, 32, .	4.0	14
75	On the modeling of wave-enhanced turbulence nearshore. Ocean Modelling, 2016, 103, 118-132.	2.4	14
76	Shipboard Observations of the Meteorology and Nearâ€Surface Environment During Autumn Freezeup in the Beaufort/Chukchi Seas. Journal of Geophysical Research: Oceans, 2018, 123, 4930-4969.	2.6	14
77	Attenuation of Ocean Surface Waves in Pancake and Frazil Sea Ice Along the Coast of the Chukchi Sea. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016746.	2.6	14
78	Scaling observations of surface waves in the Beaufort Sea. Elementa, 2016, 4, .	3.2	14
79	Inference of turbulence parameters from a ROMS simulation using the k-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si17.gif" overflow="scroll"><mml:mrow><mml:mi>Îµ</mml:mi></mml:mrow></mml:math> closure scheme. Ocean Modelling, 2013, 72, 104-118.	2.4	13
80	Wave Groups Observed in Pancake Sea Ice. Journal of Geophysical Research: Oceans, 2019, 124, 7400-7411.	2.6	13
81	Rapid deterministic wave prediction using a sparse array of buoys. Ocean Engineering, 2021, 228, 108871.	4.3	12
82	A new version of the SWIFT platform for waves, currents, and turbulence in the ocean surface layer. , 2019, , .		11
83	Landfast Ice and Coastal Wave Exposure in Northern Alaska. Geophysical Research Letters, 2021, 48, e2021GL095103.	4.0	11
84	Characteristics of underwater ambient noise at a proposed tidal energy site in puget sound. , 2010, , .		10
85	Turbulence Measurements from Compliant Moorings. Part I: Motion Characterization. Journal of Atmospheric and Oceanic Technology, 2017, 34, 1235-1247.	1.3	10
86	Wave Evolution in Offâ€Ice Wind Conditions. Journal of Geophysical Research: Oceans, 2018, 123, 5543-5556.	2.6	10
87	A Conceptual Model of a River Plume in the Surf Zone. Journal of Geophysical Research: Oceans, 2019, 124, 8060-8078.	2.6	10
88	The evolution of a shallow front in the Arctic marginal ice zone. Elementa, 2020, 8, .	3.2	10
89	Performance characterization of a cross-flow hydrokinetic turbine in sheared inflow. International Journal of Marine Energy, 2016, 16, 150-161.	1.8	9
90	Predicting Deep Water Intrusions to Puget Sound, WA (USA), and the Seasonal Modulation of Dissolved Oxygen. Estuaries and Coasts, 2018, 41, 114-127.	2.2	9

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91	Kinematics and Statistics of Breaking Waves Observed Using SWIFT Buoys. IEEE Journal of Oceanic Engineering, 2019, 44, 1011-1023.	3.8	9
92	Shipboard acoustic doppler current profiler surveys to assess tidal current resources. , 2010, , .		6
93	Wave and turbulence measurements at a tidal energy site. , 2015, , .		6
94	Turbulence measurements from moving platforms. , 2015, , .		6
95	Warm and Cool Nearshore Plumes Connecting the Surf Zone to the Inner Shelf. Geophysical Research Letters, 2021, 48, e2020GL091675.	4.0	6
96	Underwater noise measurements of a 1/7th scale wave energy converter. , 2011, , .		5
97	Thermal observations of drainage from a mud flat. Continental Shelf Research, 2013, 60, S125-S135.	1.8	5
98	Airborne LiDAR Measurements and Model Simulations of Tides, Waves, and Surface Slope at the Mouth of the Columbia River. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 7038-7048.	6.3	5
99	Long-term observations of the group structure of surface waves in ice. Ocean Dynamics, 2021, 71, 343-356.	2.2	5
100	On the Groupiness and Intermittency of Oceanic Whitecaps. Journal of Geophysical Research: Oceans, 2022, 127, .	2.6	5
101	Breaking waves in deep water: measurements and modeling of energy dissipation. Ocean Dynamics, 2019, 69, 1165-1179.	2.2	4
102	Sparse Sampling of Intermittent Turbulence Generated by Breaking Surface Waves. Journal of Physical Oceanography, 2020, 50, 867-885.	1.7	4
103	Waveâ€Driven Flow Along a Compact Marginal Ice Zone. Geophysical Research Letters, 2021, 48, e2020GL090735.	4.0	4
104	The Balance of Ice, Waves, and Winds in the Arctic Autumn. Eos, 2017, , .	0.1	4
105	Resonances in an Evolving Hole in the Swash Zone. Journal of Waterway, Port, Coastal and Ocean Engineering, 2012, 138, 299-302.	1.2	3
106	An analysis of error in surface current mapping by an along-track interferometric FMCW SAR. , 2016, , .		3
107	Variations in Wave Slope and Momentum Flux From Waveâ€Current Interactions in the Tropical Trade Winds. Journal of Geophysical Research: Oceans, 2022, 127, .	2.6	3
108	Tidal current observations through Admiralty Inlet from ferry-mounted current profilers. Journal of Ocean Engineering and Marine Energy, 2019, 5, 159-172.	1.7	2

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109	Video recognition of breaking waves. , 2014, , .		1
110	Direct Observations of the Role of Lateral Advection of Sea Ice Meltwater in the Onset of Autumn Freeze Up. Journal of Geophysical Research: Oceans, 2022, 127, .	2.6	1
111	Tidal Energy Resource Measurements. , 2017, , 121-136.		0