

# Åyvind Breivik

## List of Publications by Year in descending order

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Version: 2024-02-01

74  
papers

3,235  
citations

136740

32  
h-index

161609

54  
g-index

81  
all docs

81  
docs citations

81  
times ranked

2881  
citing authors

#	ARTICLE	IF	CITATIONS
1	Robustness and uncertainties in global multivariate wind-wave climate projections. <i>Nature Climate Change</i> , 2019, 9, 711-718.	8.1	221
2	A high-resolution hindcast of wind and waves for the North Sea, the Norwegian Sea, and the Barents Sea. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	191
3	An operational search and rescue model for the Norwegian Sea and the North Sea. <i>Journal of Marine Systems</i> , 2008, 69, 99-113.	0.9	160
4	OpenDrift v1.0: a generic framework for trajectory modelling. <i>Geoscientific Model Development</i> , 2018, 11, 1405-1420.	1.3	153
5	Wave modelling in coastal and inner seas. <i>Progress in Oceanography</i> , 2018, 167, 164-233.	1.5	145
6	Wind-induced drift of objects at sea: The leeway field method. <i>Applied Ocean Research</i> , 2011, 33, 100-109.	1.8	112
7	Surface wave effects in the NEMO ocean model: Forced and coupled experiments. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 2973-2992.	1.0	109
8	Advances in search and rescue at sea. <i>Ocean Dynamics</i> , 2013, 63, 83-88.	0.9	107
9	APPLICATIONS OF GODAE OCEAN CURRENT FORECASTS TO SEARCH AND RESCUE AND SHIP ROUTING. <i>Oceanography</i> , 2009, 22, 176-181.	0.5	95
10	Marine Wind and Wave Height Trends at Different ERA-Interim Forecast Ranges. <i>Journal of Climate</i> , 2015, 28, 819-837.	1.2	93
11	Stokes drift. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018, 376, 20170104.	1.6	89
12	Approximate Stokes Drift Profiles in Deep Water. <i>Journal of Physical Oceanography</i> , 2014, 44, 2433-2445.	0.7	88
13	Real time assimilation of HF radar currents into a coastal ocean model. <i>Journal of Marine Systems</i> , 2001, 28, 161-182.	0.9	86
14	Measurement and modeling of oil slick transport. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 7759-7775.	1.0	75
15	Wave Extremes in the Northeast Atlantic. <i>Journal of Climate</i> , 2012, 25, 1529-1543.	1.2	74
16	A Stokes drift approximation based on the Phillips spectrum. <i>Ocean Modelling</i> , 2016, 100, 49-56.	1.0	73
17	Effects of wave-induced forcing on a circulation model of the North Sea. <i>Ocean Dynamics</i> , 2017, 67, 81-101.	0.9	73
18	Projected changes in significant wave height toward the end of the 21st century: Northeast Atlantic. <i>Journal of Geophysical Research: Oceans</i> , 2017, 122, 3394-3403.	1.0	72

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19	The wind sea and swell waves climate in the Nordic seas. <i>Ocean Dynamics</i> , 2015, 65, 223-240.	0.9	68
20	Prevention of oil spill from shipping by modelling of dynamic risk. <i>Marine Pollution Bulletin</i> , 2007, 54, 1619-1633.	2.3	60
21	Global Wind Speed and Wave Height Extremes Derived from Long-Duration Satellite Records. <i>Journal of Climate</i> , 2019, 32, 109-126.	1.2	58
22	Comparison of Wind Speed and Wave Height Trends from Twentieth-Century Models and Satellite Altimeters. <i>Journal of Climate</i> , 2020, 33, 611-624.	1.2	55
23	Forecasting the Drift of Objects and Substances in the Ocean. , 2006, , 507-523.		45
24	Wind and wave extremes over the world oceans from very large ensembles. <i>Geophysical Research Letters</i> , 2014, 41, 5122-5131.	1.5	44
25	Climate change and safe design of ship structures. <i>Ocean Engineering</i> , 2018, 149, 226-237.	1.9	41
26	A short-term predictive system for surface currents from a rapidly deployed coastal HF radar network. <i>Ocean Dynamics</i> , 2012, 62, 725-740.	0.9	40
27	Comparison of HF radar measurements with Eulerian and Lagrangian surface currents. <i>Ocean Dynamics</i> , 2015, 65, 679-690.	0.9	40
28	Surface wave effects on water temperature in the Baltic Sea: simulations with the coupled NEMO-WAM model. <i>Ocean Dynamics</i> , 2016, 66, 917-930.	0.9	40
29	Statistical models of global Langmuir mixing. <i>Ocean Modelling</i> , 2017, 113, 95-114.	1.0	39
30	Wind and Wave Extremes from Atmosphere and Wave Model Ensembles. <i>Journal of Climate</i> , 2018, 31, 8819-8842.	1.2	37
31	SEASTAR: A Mission to Study Ocean Submesoscale Dynamics and Small-Scale Atmosphere-Ocean Processes in Coastal, Shelf and Polar Seas. <i>Frontiers in Marine Science</i> , 2019, 6, .	1.2	37
32	Ocean-Wave-Atmosphere Interaction Processes in a Fully Coupled Modeling System. <i>Journal of Advances in Modeling Earth Systems</i> , 2019, 11, 3852-3874.	1.3	37
33	The leeway of shipping containers at different immersion levels. <i>Ocean Dynamics</i> , 2012, 62, 741-752.	0.9	35
34	Wave Extremes in the Northeast Atlantic from Ensemble Forecasts. <i>Journal of Climate</i> , 2013, 26, 7525-7540.	1.2	35
35	Wave effects on coastal upwelling and water level. <i>Ocean Modelling</i> , 2019, 140, 101405.	1.0	35
36	Surface wave measurements using a ship-mounted ultrasonic altimeter. <i>Methods in Oceanography</i> , 2013, 6, 1-15.	1.5	34

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37	Nearshore wave forecasting and hindcasting by dynamical and statistical downscaling. <i>Journal of Marine Systems</i> , 2009, 78, S235-S243.	0.9	33
38	The full life cycle of a polar low over the Norwegian Sea observed by three research aircraft flights. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2011, 137, 1659-1673.	1.0	29
39	The importance of wind forcing in fjord wave modelling. <i>Ocean Dynamics</i> , 2020, 70, 57-75.	0.9	27
40	An open source, versatile, affordable waves in ice instrument for scientific measurements in the Polar Regions. <i>Cold Regions Science and Technology</i> , 2020, 170, 102955.	1.6	25
41	Modelling wave growth in narrow fetch geometries: The white-capping and wind input formulations. <i>Ocean Modelling</i> , 2021, 157, 101730.	1.0	25
42	Turbulence Scaling Comparisons in the Ocean Surface Boundary Layer. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 2172-2191.	1.0	22
43	Short-Term Predictions of Oceanic Drift. <i>Oceanography</i> , 2018, 31, 59-67.	0.5	22
44	Modeling Whitecap Fraction with a Wave Model. <i>Journal of Physical Oceanography</i> , 2016, 46, 887-894.	0.7	21
45	NORA3: A Nonhydrostatic High-Resolution Hindcast of the North Sea, the Norwegian Sea, and the Barents Sea. <i>Journal of Applied Meteorology and Climatology</i> , 2021, 60, 1443-1464.	0.6	19
46	BAKTRAK: backtracking drifting objects using an iterative algorithm with a forward trajectory model. <i>Ocean Dynamics</i> , 2012, 62, 239-252.	0.9	18
47	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.	1.0	17
48	NORA10EI: A revised regional atmosphere-wave hindcast for the North Sea, the Norwegian Sea and the Barents Sea. <i>International Journal of Climatology</i> , 2020, 40, 4347-4373.	1.5	15
49	Effects of Wave-Induced Processes in a Coupled Wave-Ocean Model on Particle Transport Simulations. <i>Water (Switzerland)</i> , 2021, 13, 415.	1.2	15
50	Evaluating the Leeway Coefficient of Ocean Drifters Using Operational Marine Environmental Prediction Systems. <i>Journal of Atmospheric and Oceanic Technology</i> , 2020, 37, 1943-1954.	0.5	15
51	A comparison of Langmuir turbulence parameterizations and key wave effects in a numerical model of the North Atlantic and Arctic Oceans. <i>Ocean Modelling</i> , 2019, 137, 76-97.	1.0	14
52	Sea-state contributions to sea-level variability in the European Seas. <i>Ocean Dynamics</i> , 2020, 70, 1547-1569.	0.9	13
53	Comparison of Remotely Measured and Modelled Currents in Coastal Areas of Norway and Spain. <i>Vital</i> , 2003, 9, 39-64.	0.0	10
54	Global Stokes Drift Climate under the RCP8.5 Scenario. <i>Journal of Climate</i> , 2019, 32, 1677-1691.	1.2	10

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55	Subsurface maxima in buoyant fish eggs indicate vertical velocity shear and spatially limited spawning grounds. <i>Limnology and Oceanography</i> , 2019, 64, 1239-1251.	1.6	9
56	Long-Term Statistics of Observed Bubble Depth Versus Modeled Wave Dissipation. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015906.	1.0	9
57	A Combined Stokes Drift Profile under Swell and Wind Sea. <i>Journal of Physical Oceanography</i> , 2020, 50, 2819-2833.	0.7	7
58	The Impact of a Reduced High-Wind Charnock Parameter on Wave Growth With Application to the North Sea, the Norwegian Sea, and the Arctic Ocean. <i>Journal of Geophysical Research: Oceans</i> , 2022, 127, .	1.0	7
59	A novel approach to computing super observations for probabilistic wave model validation. <i>Ocean Modelling</i> , 2019, 139, 101404.	1.0	6
60	The international workshop on wave hindcasting and forecasting and the coastal hazards symposium. <i>Ocean Dynamics</i> , 2015, 65, 761-771.	0.9	5
61	Efficient bootstrap estimates for tail statistics. <i>Natural Hazards and Earth System Sciences</i> , 2017, 17, 357-366.	1.5	5
62	On the Groupiness and Intermittency of Oceanic Whitecaps. <i>Journal of Geophysical Research: Oceans</i> , 2022, 127, .	1.0	5
63	Resolving regions known for intense wave-current interaction using spectral wave models: A case study in the energetic flow fields of Northern Norway. <i>Ocean Modelling</i> , 2022, 176, 102071.	1.0	4
64	The Ocean Version of the Lagrangian Analysis Tool LAGRANTO. <i>Journal of Atmospheric and Oceanic Technology</i> , 2017, 34, 1723-1741.	0.5	3
65	The 14th international workshop on wave hindcasting and forecasting and the 5th coastal hazards symposium. <i>Ocean Dynamics</i> , 2017, 67, 551-556.	0.9	3
66	The impact of surface currents on the wave climate in narrow fjords. <i>Ocean Modelling</i> , 2021, 168, 101894.	1.0	3
67	Rapid deployable HF RADAR for Norwegian emergency spill operations. , 2010, , .		2
68	Analysis of Rogue Waves in North-Sea In-Situ Surface Wave Data. , 2018, , .		2
69	Intense interactions between ocean waves and currents observed in the Lofoten Maelstrom. <i>Journal of Physical Oceanography</i> , 2021, , .	0.7	2
70	A Nonparametric, Data-Driven Approach to Despiking Ocean Surface Wave Time Series. <i>Journal of Atmospheric and Oceanic Technology</i> , 2022, 39, 71-90.	0.5	2
71	Estimating a mean transport velocity in the marginal ice zone using ice-ocean prediction systems. <i>Cryosphere</i> , 2022, 16, 2103-2114.	1.5	2
72	The shallow-waterness of the wave climate in European coastal regions. <i>Ocean Science</i> , 2017, 13, 589-597.	1.3	1

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73	The 1st International Workshop on Waves, Storm Surges and Coastal Hazards incorporating the 15th International Workshop on Wave Hindcasting and Forecasting. <i>Ocean Dynamics</i> , 2019, 69, 513-517.	0.9	1
74	The redistribution of air-sea momentum and turbulent kinetic energy fluxes by ocean surface gravity waves. <i>Journal of Physical Oceanography</i> , 2022, , .	0.7	1