Fernando J MÃ©ndez

List of Publications by Year
in descending order

114 papers	5,144 citations	87888 38 h-index	95266 68 g-index
115 all docs	115 docs citations	115 times ranked	3866 citing authors

#	Article	IF	Citations
1	An empirical model to estimate the propagation of random breaking and nonbreaking waves over vegetation fields. Coastal Engineering, 2004, 51, 103-118.	4.0	425
2	A recent increase in global wave power as a consequence of oceanic warming. Nature Communications, 2019, 10, 205.	12.8	283
3	Analysis of clustering and selection algorithms for the study of multivariate wave climate. Coastal Engineering, 2011, 58, 453-462.	4.0	210
4	A Global Ocean Wave (GOW) calibrated reanalysis from 1948 onwards. Coastal Engineering, 2012, 65, 38-55.	4.0	200
5	Hydrodynamics induced by wind waves in a vegetation field. Journal of Geophysical Research, 1999, 104, 18383-18396.	3.3	175
6	A hybrid efficient method to downscale wave climate to coastal areas. Coastal Engineering, 2011, 58, 851-862.	4.0	166
7	Global extreme wave height variability based on satellite data. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	158
8	Estimation of the long-term variability of extreme significant wave height using a time-dependent Peak Over Threshold (POT) model. Journal of Geophysical Research, 2006, 111, .	3.3	146
9	Variability of extreme wave heights in the northeast Pacific Ocean based on buoy measurements. Geophysical Research Letters, 2008, 35, .	4.0	114
10	Blind testing of shoreline evolution models. Scientific Reports, 2020, 10, 2137.	3.3	112
11	Changing extreme sea levels along European coasts. Coastal Engineering, 2014, 87, 4-14.	4.0	102
12	Analyzing Monthly Extreme Sea Levels with a Time-Dependent GEV Model. Journal of Atmospheric and Oceanic Technology, 2007, 24, 894-911.	1.3	100
13	Evaluating the performance of CMIP3 and CMIP5 global climate models over the north-east Atlantic region. Climate Dynamics, 2014, 43, 2663-2680.	3.8	98
14	High resolution downscaled ocean waves (DOW) reanalysis in coastal areas. Coastal Engineering, 2013, 72, 56-68.	4.0	97
15	A weather-type statistical downscaling framework for ocean wave climate. Journal of Geophysical Research: Oceans, 2014, 119, 7389-7405.	2.6	91
16	A global classification of coastal flood hazard climates associated with large-scale oceanographic forcing. Scientific Reports, 2017, 7, 5038.	3.3	85
17	A methodology for deriving extreme nearshore sea conditions for structural design and flood risk analysis. Coastal Engineering, 2014, 88, 15-26.	4.0	84
18	An integrated coastal modeling system for analyzing beach processes and beach restoration projects, SMC. Computers and Geosciences, 2007, 33, 916-931.	4.2	83

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19	High-resolution sea wind hindcasts over the Mediterranean area. Climate Dynamics, 2014, 42, 1857-1872.	3.8	81
20	The influence of seasonality on estimating return values of significant wave height. Coastal Engineering, 2009, 56, 211-219.	4.0	79
21	Statistical multi-model climate projections of surface ocean waves in Europe. Ocean Modelling, 2015, 96, 161-170.	2.4	78
22	Calibration of a Lagrangian Transport Model Using Drifting Buoys Deployed during the<i>Prestige</i>Oil Spill. Journal of Coastal Research, 2009, 251, 80-90.	0.3	77
23	The Prestige Oil Spill in Cantabria (Bay of Biscay). Part I: Operational Forecasting System for Quick Response, Risk Assessment, and Protection of Natural Resources. Journal of Coastal Research, 2006, 226, 1474-1489.	0.3	76
24	Long-term changes in the frequency, intensity and duration of extreme storm surge events in southern Europe. Climate Dynamics, 2016, 46, 1503-1516.	3.8	76
25	Long-term changes in sea-level components in Latin America and the Caribbean. Global and Planetary Change, 2013, 104, 34-50.	3.5	72
26	Extreme wave climate variability in southern Europe using satellite data. Journal of Geophysical Research, 2010, 115, .	3.3	70
27	Variability of multivariate wave climate in Latin America and the Caribbean. Global and Planetary Change, 2013, 100, 70-84.	3.5	68
28	A perturbation method to solve dispersion equations for water waves over dissipative media. Coastal Engineering, 2004, 51, 81-89.	4.0	66
29	Directional Calibration of Wave Reanalysis Databases Using Instrumental Data. Journal of Atmospheric and Oceanic Technology, 2011, 28, 1466-1485.	1.3	66
30	Seasonality and duration in extreme value distributions of significant wave height. Ocean Engineering, 2008, 35, 131-138.	4.3	64
31	Predicting Climateâ€Driven Coastlines With a Simple and Efficient Multiscale Model. Journal of Geophysical Research F: Earth Surface, 2019, 124, 1596-1624.	2.8	64
32	An approach to assess flooding and erosion risk for open beaches in a changing climate. Coastal Engineering, 2014, 87, 50-76.	4.0	61
33	Morphodynamic classification of sandy beaches in low energetic marine environment. Marine Geology, 2007, 242, 235-246.	2.1	56
34	ESTELA: a method for evaluating the source and travel time of the wave energy reaching a local area. Ocean Dynamics, 2014, 64, 1181-1191.	2.2	52
35	A multiscale climate emulator for longâ€term morphodynamics (MUSCLEâ€morpho). Journal of Geophysical Research: Oceans, 2016, 121, 775-791.	2.6	44
36	A Climate Index Optimized for Longshore Sediment Transport Reveals Interannual and Multidecadal Littoral Cell Rotations. Journal of Geophysical Research F: Earth Surface, 2018, 123, 1958-1981.	2.8	42

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37	A method for finding the optimal predictor indices for local wave climate conditions. Ocean Dynamics, 2014, 64, 1025-1038.	2.2	39
38	Transformation model of wave height distribution on planar beaches. Coastal Engineering, 2004, 50, 97-115.	4.0	38
39	Coastal waters classification based on physical attributes along the NE Atlantic region. An approach for rocky macroalgae potential distribution. Estuarine, Coastal and Shelf Science, 2012, 112, 105-114.	2.1	38
40	Comparative Coastal Risk Index (CCRI): A multidisciplinary risk index for Latin America and the Caribbean. PLoS ONE, 2017, 12, e0187011.	2.5	38
41	Global reconstructed daily surge levels from the 20th Century Reanalysis (1871â€"2010). Global and Planetary Change, 2017, 148, 9-21.	3.5	37
42	Wave-Induced Mean Magnitudes in Permeable Submerged Breakwaters. Journal of Waterway, Port, Coastal and Ocean Engineering, 2001, 127, 7-15.	1.2	35
43	Exploring the interannual variability of extreme wave climate in the Northeast Atlantic Ocean. Ocean Modelling, 2012, 59-60, 31-40.	2.4	32
44	Future regional projections of extreme temperatures in Europe: a nonstationary seasonal approach. Climatic Change, 2012, 113, 371-392.	3.6	32
45	A Multimodal Wave Spectrumâ€"Based Approach for Statistical Downscaling of Local Wave Climate. Journal of Physical Oceanography, 2017, 47, 375-386.	1.7	32
46	Wave climate projections along the French coastline: Dynamical versus statistical downscaling methods. Ocean Modelling, 2014, 84, 35-50.	2.4	31
47	Forecasting seasonal to interannual variability in extreme sea levels. ICES Journal of Marine Science, 2009, 66, 1490-1496.	2.5	30
48	Extreme wave climate changes in Central-South America. Climatic Change, 2013, 119, 277-290.	3.6	30
49	Autoregressive logistic regression applied to atmospheric circulation patterns. Climate Dynamics, 2014, 42, 537-552.	3.8	28
50	Spectral Ocean Wave Climate Variability Based on Atmospheric Circulation Patterns. Journal of Physical Oceanography, 2014, 44, 2139-2152.	1.7	28
51	Downscaling Changing Coastlines in a Changing Climate: The Hybrid Approach. Journal of Geophysical Research F: Earth Surface, 2018, 123, 229-251.	2.8	27
52	HyCReWW: A Hybrid Coral Reef Wave and Water level metamodel. Computers and Geosciences, 2019, 127, 85-90.	4.2	27
53	An extreme value model for maximum wave heights based on weather types. Journal of Geophysical Research: Oceans, 2016, 121, 1262-1273.	2.6	26
54	A methodology to assess the probability of marine litter accumulation in estuaries. Marine Pollution Bulletin, 2019, 144, 309-324.	5.0	26

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55	Models for the Turbulent Diffusion Terms of Shallow Water Equations. Journal of Hydraulic Engineering, 2005, 131, 217-223.	1.5	23
56	A method for spatial calibration of wave hindcast data bases. Continental Shelf Research, 2008, 28, 391-398.	1.8	23
57	Multivariate Wave Climate Using Self-Organizing Maps. Journal of Atmospheric and Oceanic Technology, 2011, 28, 1554-1568.	1.3	23
58	Regression Models for Outlier Identification (Hurricanes and Typhoons) in Wave Hindcast Databases. Journal of Atmospheric and Oceanic Technology, 2012, 29, 267-285.	1.3	23
59	The effect of temporal dependence on the estimation of the frequency of extreme ocean climate events. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2006, 462, 1683-1697.	2.1	22
60	Pseudo-optimal parameter selection of non-stationary generalized extreme value models for environmental variables. Environmental Modelling and Software, 2010, 25, 1592-1607.	4.5	21
61	Probabilistic relationships between wind and surface water circulation patterns in the SE Bay of Biscay. Ocean Dynamics, 2015, 65, 1289-1303.	2.2	21
62	An atmospheric-to-marine synoptic classification for statistical downscaling marine climate. Ocean Dynamics, 2016, 66, 1589-1601.	2.2	21
63	Timeâ€Varying Emulator for Short and Longâ€Term Analysis of Coastal Flood Hazard Potential. Journal of Geophysical Research: Oceans, 2019, 124, 9209-9234.	2.6	21
64	The Application of Ensemble Wave Forcing to Quantify Uncertainty of Shoreline Change Predictions. Journal of Geophysical Research F: Earth Surface, 2021, 126, e2019JF005506.	2.8	21
65	A Multiscale Approach to Shoreline Prediction. Geophysical Research Letters, 2021, 48, .	4.0	20
66	Marine climate variability based on weather patterns for a complicated island setting: The New Zealand case. International Journal of Climatology, 2019, 39, 1777-1786.	3.5	19
67	Steps to Develop Early Warning Systems and Future Scenarios of Storm Wave-Driven Flooding Along Coral Reef-Lined Coasts. Frontiers in Marine Science, 2020, 7, .	2.5	19
68	Sensitivity analysis of time-dependent generalized extreme value models for ocean climate variables. Advances in Water Resources, 2010, 33, 833-845.	3.8	18
69	Mixed extreme wave climate model for reanalysis databases. Stochastic Environmental Research and Risk Assessment, 2013, 27, 757-768.	4.0	18
70	A nearshore long-term infragravity wave analysis for open harbours. Coastal Engineering, 2015, 97, 78-90.	4.0	18
71	A methodology to evaluate regional-scale offshore wind energy resources. , 2011, , .		17
72	Multiscale climate emulator of multimodal wave spectra: MUSCLE-spectra. Journal of Geophysical Research: Oceans, 2017, 122, 1400-1415.	2.6	17

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73	A multivariate, stochastic, climate-based wave emulator for shoreline change modelling. Ocean Modelling, 2020, 154, 101695.	2.4	17
74	Surfing wave climate variability. Global and Planetary Change, 2014, 121, 19-25.	3.5	16
75	Controls of Multimodal Wave Conditions in a Complex Coastal Setting. Geophysical Research Letters, 2017, 44, 12,315.	4.0	16
76	Climate-based Monte Carlo simulation of trivariate sea states. Coastal Engineering, 2013, 80, 107-121.	4.0	14
77	A simplified method to downscale wave dynamics on vertical breakwaters. Coastal Engineering, 2013, 71, 68-77.	4.0	14
78	Identification of storm events and contiguous coastal sections for deterministic modeling of extreme coastal flood events in response to climate change. Coastal Engineering, 2018, 140, 316-330.	4.0	14
79	Projecting Climate Dependent Coastal Flood Risk With a Hybrid Statistical Dynamical Model. Earth's Future, 2021, 9, e2021EF002285.	6.3	14
80	Historical and future storm surge around New Zealand: From the 19th century to the end of the 21st century. International Journal of Climatology, 2020, 40, 1512-1525.	3.5	13
81	A multivariate approach to estimate design loads for offshore wind turbines. Wind Energy, 2013, 16, 1091-1106.	4.2	12
82	Directional correction of modeled sea and swell wave heights using satellite altimeter data. Ocean Modelling, 2018, 131, 103-114.	2.4	12
83	Daily synoptic conditions associated with occurrences of compound events in estuaries along North Atlantic coastlines. International Journal of Climatology, 2022, 42, 5694-5713.	3.5	12
84	Ecological typologies of large areas. An application in the Mediterranean Sea. Journal of Environmental Management, 2018, 205, 59-72.	7.8	11
85	Climate-induced variability in South Atlantic wave direction over the past three millennia. Scientific Reports, 2020, 10, 18553.	3.3	11
86	Influence of the NAO on the northwestern Mediterranean wave climate. Scientia Marina, 2010, 74, 55-64.	0.6	11
87	Long-term tidal level distribution using a wave-by-wave approach. Advances in Water Resources, 2007, 30, 2271-2282.	3.8	10
88	Directional calibrated wind and wave reanalysis databases using instrumental data for optimal design of off-shore wind farms. , 2011, , .		10
89	Evaluation of global wave energy resource. , 2011, , .		10
90	Seas and swells throughout New Zealand: A new partitioned hindcast. Ocean Modelling, 2021, 168, 101897.	2.4	10

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91	A probability distribution for depth-limited extreme wave heights in a sea state. Coastal Engineering, 2007, 54, 878-882.	4.0	9
92	Climateâ€Based Emulator of Distant Swell Trains and Local Seas Approaching a Pacific Atoll. Journal of Geophysical Research: Oceans, 2021, 126, e2020JC016919.	2.6	8
93	Introducing marine climate variability into life cycle management of coastal and offshore structures. , 2009, , .		4
94	A Meta-Modelling Approach for Estimating Long-Term Wave Run-Up and Total Water Level on Beaches. Journal of Coastal Research, 2018, 342, 475-489.	0.3	4
95	Corrientes de retorno en medios reflejantes y disipativos. IngenierÃa Del Agua, 1998, 5, .	0.4	4
96	Wind wave footprint of tropical cyclones from satellite data. International Journal of Climatology, 2023, 43, 372-381.	3.5	4
97	A Perturbation Method for Wave and Wave-Induced Currents Computations in Beach Morphology Models. , 2001, , 393.		3
98	Is the extreme wave climate in the NE Pacific increasing?. , 2010, , .		3
99	Improving construction management of port infrastructures using an advanced computer-based system. Automation in Construction, 2017, 81, 122-133.	9.8	3
100	Characterizing storm-induced coastal change hazards along the United States West Coast. Scientific Data, 2022, 9, .	5.3	3
101	Analyzing the multidimensional wave climate with self organizing maps. , 2009, , .		2
102	A methodology to define extreme wave climate using reanalysis data bases. , 2011, , .		2
103	THE NEW COASTAL MODELLING SYSTEM SMC-BRAZIL AND ITS APPLICATION TO THE EROSIONAL PROBLEM IN THE MASSAGUAÃ‡U BEACH (SAO PAULO, BRAZIL). Coastal Engineering Proceedings, 2015, 1, 49.	0.1	2
104	On the feasibility of the use of wind SAR to downscale waves on shallow water. Ocean Science, 2016, 12, 39-49.	3.4	2
105	A hybrid regional climate downscaling for the southern Brazil coastal region. International Journal of Climatology, 2022, 42, 6753-6770.	3.5	2
106	Spatial and temporal variability of nearshore wave energy resources along Spain: Methodology and results. , 2010, , .		1
107	An Engineering Approach for Modeling Hurricane Extreme Waves Using Analytical and Numerical Tools. , 2012, , .		1
108	Reply to â€œOn the new wave height distributionâ€· Coastal Engineering, 2006, 53, 709.	4.0	0

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109	A multivariate approach to estimate design loads for offshore wind turbines. , 2011, , .		0
110	Downscaling wave energy resources to coastal areas. , 2011, , .		0
111	Numerical Analysis and Diagnosis of the Hydrodynamic Effects Produced by Hurricane Gordon along the Coast of Spain. Weather and Forecasting, 2014, 29, 666-683.	1.4	0
112	CAN WE DISTINGUISH COASTAL IMPACTS OF THE DIFFERENT ENSO FLAVORS?. , 2015, , .		0
113	A CLIMATE-BASED MULTIVARIATE WAVE EMULATOR FOR LONG-TERM MORPHODYNAMIC SIMULATIONS. , 2015, , .		0
114	Wave climates: deep water to shoaling zone. , 2020, , 39-59.		0