Peter Ruggiero

List of Publications by Year in descending order

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102 papers	4,667 citations	76294 40 h-index	106281 65 g-index
109 all docs	109 docs citations	109 times ranked	3974 citing authors

#	Article	IF	Citations
1	Coastal vulnerability across the Pacific dominated by El NiÃ±o/Southern Oscillation. Nature Geoscience, 2015, 8, 801-807.	5.4	279
2	Increasing wave heights and extreme value projections: The wave climate of the U.S. Pacific Northwest. Coastal Engineering, 2010, 57, 539-552.	1.7	233
3	Modeling benefits from nature: using ecosystem services to inform coastal and marine spatial planning. International Journal of Biodiversity Science, Ecosystem Services & Management, 2012, 8, 107-121.	2.9	217
4	The Power of Three: Coral Reefs, Seagrasses and Mangroves Protect Coastal Regions and Increase Their Resilience. PLoS ONE, 2016, 11, e0158094.	1.1	210
5	Extreme oceanographic forcing and coastal response due to the 2015â€“2016 El NiÃ±o. Nature Communications, 2017, 8, 14365.	5.8	158
6	Seasonal to Interannual Morphodynamics along a High-Energy Dissipative Littoral Cell. Journal of Coastal Research, 2005, 213, 553-578.	0.1	156
7	Wave run-up on a high-energy dissipative beach. Journal of Geophysical Research, 2004, 109, .	3.3	129
8	Biophysical feedback mediates effects of invasive grasses on coastal dune shape. Ecology, 2012, 93, 1439-1450.	1.5	126
9	Simulating extreme total water levels using a timeâ€dependent, extreme value approach. Journal of Geophysical Research: Oceans, 2014, 119, 6305-6329.	1.0	122
10	Development of the Coastal Storm Modeling System (CoSMoS) for predicting the impact of storms on high-energy, active-margin coasts. Natural Hazards, 2014, 74, 1095-1125.	1.6	121
11	Subtle differences in two nonâ€native congeneric beach grasses significantly affect their colonization, spread, and impact. Oikos, 2012, 121, 138-148.	1.2	99
12	Forecasting the response of Earth's surface to future climatic and land use changes: A review of methods and research needs. Earth's Future, 2015, 3, 220-251.	2.4	98
13	The relative contribution of waves, tides, and nontidal residuals to extreme total water levels on U.S. West Coast sandy beaches. Geophysical Research Letters, 2017, 44, 1839-1847.	1.5	98
14	Comparing Mean High Water and High Water Line Shorelines: Should Proxy-Datum Offsets be Incorporated into Shoreline Change Analysis?. Journal of Coastal Research, 2006, 224, 894-905.	0.1	94
15	Projected wave conditions in the Eastern North Pacific under the influence of two CMIP5 climate scenarios. Ocean Modelling, 2015, 96, 171-185.	1.0	94
16	A global classification of coastal flood hazard climates associated with large-scale oceanographic forcing. Scientific Reports, 2017, 7, 5038.	1.6	85
17	Northwest Sumatra and Offshore Islands Field Survey after the December 2004 Indian Ocean Tsunami. Earthquake Spectra, 2006, 22, 105-135.	1.6	79
18	Modeling the effects of wave climate and sediment supply variability on large-scale shoreline change. Marine Geology, 2010, 273, 127-140.	0.9	75

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19	Invasive grasses, climate change, and exposure to stormâ€wave overtopping in coastal dune ecosystems. Global Change Biology, 2013, 19, 824-832.	4.2	73
20	Exploring Marine and Aeolian Controls on Coastal Foredune Growth Using a Coupled Numerical Model. Journal of Marine Science and Engineering, 2019, 7, 13.	1.2	72
21	Cobble cam: grainâ€size measurements of sand to boulder from digital photographs and autocorrelation analyses. Earth Surface Processes and Landforms, 2009, 34, 1811-1821.	1.2	71
22	Is the Intensifying Wave Climate of the U.S. Pacific Northwest Increasing Flooding and Erosion Risk Faster Than Sea-Level Rise?. Journal of Waterway, Port, Coastal and Ocean Engineering, 2013, 139, 88-97.	0.5	68
23	Predicting Climateâ€Driven Coastlines With a Simple and Efficient Multiscale Model. Journal of Geophysical Research F: Earth Surface, 2019, 124, 1596-1624.	1.0	64
24	Coastal foredune evolution: the relative influence of vegetation and sand supply in the US Pacific Northwest. Journal of the Royal Society Interface, 2015, 12, 20150017.	1.5	61
25	Improving Accuracy and Statistical Reliability of Shoreline Position and Change Rate Estimates. Journal of Coastal Research, 2009, 255, 1069-1081.	0.1	59
26	Integrated modeling framework to quantify the coastal protection services supplied by vegetation. Journal of Geophysical Research: Oceans, 2015, 120, 324-345.	1.0	59
27	Wave resource assessment in Oregon and southwest Washington, USA. Renewable Energy, 2014, 64, 203-214.	4.3	58
28	The influence of seasonal to interannual nearshore profile variability on extreme water levels: Modeling wave runup on dissipative beaches. Coastal Engineering, 2016, 115, 79-92.	1.7	58
29	Seasonal-scale nearshore morphological evolution: Field observations and numerical modeling. Coastal Engineering, 2009, 56, 1153-1172.	1.7	57
30	New Insights on Coastal Foredune Growth: The Relative Contributions of Marine and Aeolian Processes. Geophysical Research Letters, 2018, 45, 4965-4973.	1.5	57
31	Morphodynamics of prograding beaches: A synthesis of seasonal- to century-scale observations of the Columbia River littoral cell. Marine Geology, 2016, 376, 51-68.	0.9	50
32	The impact of the 2009-10 El NiÃ±o Modoki on U.S. West Coast beaches. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	48
33	Estimating Storm-Induced Dune Erosion and Overtopping along U.S. West Coast Beaches. Journal of Coastal Research, 2014, 298, 1173-1187.	0.1	48
34	Species-Specific Functional Morphology of Four US Atlantic Coast Dune Grasses: Biogeographic Implications for Dune Shape and Coastal Protection. Diversity, 2019, 11, 82.	0.7	48
35	Contribution of Wave Setup to Projected Coastal Sea Level Changes. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016078.	1.0	48
36	Historical evolution of the Columbia River littoral cell. Marine Geology, 2010, 273, 96-126.	0.9	46

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37	Sea Level Variations along the U.S. Pacific Northwest Coast: Tectonic and Climate Controls. Journal of Coastal Research, 2011, 276, 808-823.	0.1	46
38	A multiscale climate emulator for longâ€term morphodynamics (MUSCLEâ€morpho). Journal of Geophysical Research: Oceans, 2016, 121, 775-791.	1.0	44
39	Vegetation control allows autocyclic formation of multiple dunes on prograding coasts. Geology, 2016, 44, 559-562.	2.0	43
40	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.	1.0	42
41	Beach morphology and change along the mixed grain-size delta of the dammed Elwha River, Washington. Geomorphology, 2009, 111, 136-148.	1.1	41
42	Environmental and morphologic controls on wave-induced dune response. Geomorphology, 2019, 329, 108-128.	1.1	40
43	A methodology for predicting future coastal hazards due to sea-level rise on the California Coast. Climatic Change, 2011, 109, 251-276.	1.7	39
44	The influence of shelf bathymetry and beach topography on extreme total water levels: Linking large-scale changes of the wave climate to local coastal hazards. Coastal Engineering, 2019, 150, 1-17.	1.7	39
45	What's streamflow got to do with it? A probabilistic simulation of the competing oceanographic and fluvial processes driving extreme along-river water levels. Natural Hazards and Earth System Sciences, 2019, 19, 1415-1431.	1.5	37
46	An Inner-Shelf Wave Forecasting System for the U.S. Pacific Northwest. Weather and Forecasting, 2013, 28, 681-703.	0.5	36
47	Coastal protection and conservation on sandy beaches and dunes: contextâ€dependent tradeoffs in ecosystem service supply. Ecosphere, 2017, 8, e01791.	1.0	36
48	The effect of sand fencing on the morphology of natural dune systems. Geomorphology, 2020, 352, 106995.	1.1	31
49	Regional scale sandbar variability: Observations from the U.S. Pacific Northwest. Continental Shelf Research, 2015, 95, 74-88.	0.9	29
50	Elucidating Coastal Foredune Ecomorphodynamics in the U.S. Pacific Northwest via Bayesian Networks. Journal of Geophysical Research F: Earth Surface, 2019, 124, 1919-1938.	1.0	27
51	Literature-based latitudinal distribution and possible range shifts of two US east coast dune grass species (Uniola paniculata and Ammophila breviligulata). PeerJ, 2018, 6, e4932.	0.9	26
52	Mapping Out Climate Change: Assessing How Coastal Communities Adapt Using Alternative Future Scenarios. Journal of Coastal Research, 2018, 34, 1196.	0.1	23
53	Exploring the impacts of climate and policy changes on coastal community resilience: Simulating alternative future scenarios. Environmental Modelling and Software, 2018, 109, 80-92.	1.9	22
54	Emulation as an approach for rapid estuarine modeling. Coastal Engineering, 2019, 150, 79-93.	1.7	22

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55	The Role of Vegetation in Determining Dune Morphology, Exposure to Sea-Level Rise, and Storm-Induced Coastal Hazards: A U.S. Pacific Northwest Perspective. , 2018, , 337-361.		22
56	Large runup controls on a gently sloping dissipative beach. Journal of Geophysical Research: Oceans, 2017, 122, 5998-6010.	1.0	21
57	Timeâ€Varying Emulator for Short and Longâ€Term Analysis of Coastal Flood Hazard Potential. Journal of Geophysical Research: Oceans, 2019, 124, 9209-9234.	1.0	21
58	An analytic model for the prediction of wave setup, longshore currents and sediment transport on beaches with seawalls. Coastal Engineering, 2001, 43, 161-182.	1.7	20
59	Invasive Congeners Differ in Successional Impacts across Space and Time. PLoS ONE, 2015, 10, e0117283.	1.1	18
60	Multiscale climate emulator of multimodal wave spectra: MUSCLE-spectra. Journal of Geophysical Research: Oceans, 2017, 122, 1400-1415.	1.0	17
61	A multivariate, stochastic, climate-based wave emulator for shoreline change modelling. Ocean Modelling, 2020, 154, 101695.	1.0	17
62	A Quantitative Comparison of Low-Cost Structure from Motion (SfM) Data Collection Platforms on Beaches and Dunes. Journal of Coastal Research, 2018, 34, 1341.	0.1	16
63	The relative influence of dune aspect ratio and beach width on dune erosion as a function of storm duration and surge level. Earth Surface Dynamics, 2021, 9, 1223-1237.	1.0	16
64	Interdecadal Foredune Changes along the Southeast Australian Coastline: 1942â€“2014. Journal of Marine Science and Engineering, 2019, 7, 177.	1.2	15
65	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.	1.7	14
66	Projecting Climate Dependent Coastal Flood Risk With a Hybrid Statistical Dynamical Model. Earth's Future, 2021, 9, e2021EF002285.	2.4	14
67	The Role of Ecomorphodynamic Feedbacks and Landscape Couplings in Influencing the Response of Barriers to Changing Climate. , 2018, , 305-336.		13
68	Intertidal sand body migration along a megatidal coast, Kachemak Bay, Alaska. Journal of Geophysical Research, 2007, 112, .	3.3	11
69	Impacts of Climate Change on Coastal Erosion and Flood Probability in the US Pacific Northwest. , 2008, , .		11
70	Ocean Wave Climates: Trends and Variations Due to Earth's Changing Climate. , 2009, , 971-995.		11
71	Pacific Storms Climatology Products (PSCP): Understanding Extreme Events. Bulletin of the American Meteorological Society, 2013, 94, 13-18.	1.7	11
72	Analysis and catalogue of sneaker waves in the US Pacific Northwest between 2005 and 2017. Natural Hazards, 2018, 94, 583-603.	1.6	11

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73	INTERANNUAL TO DECADAL FOREDUNE EVOLUTION. , 2011, , .		11
74	Investigating the role of complex sandbar morphology on nearshore hydrodynamics. Journal of Coastal Research, 2014, 70, 53-58.	0.1	10
75	Incorporating climate change and morphological uncertainty into coastal change hazard assessments. Natural Hazards, 2015, 75, 2081-2102.	1.6	10
76	Combining process-based and data-driven approaches to forecast beach and dune change. Environmental Modelling and Software, 2022, 153, 105404.	1.9	10
77	Storm Surge Magnitudes and Frequency on the Central Oregon Coast. , 2011, , .		9
78	Quantifying Uncertainty in Exposure to Coastal Hazards Associated with Both Climate Change and Adaptation Strategies: A U.S. Pacific Northwest Alternative Coastal Futures Analysis. Water (Switzerland), 2021, 13, 545.	1.2	9
79	Spatial and Temporal Variability of Dissipative Dry Beach Profiles in the Pacific Northwest, U.S.A.. Journal of Coastal Research, 2018, 34, 510.	0.1	8
80	Impacts of 150 Years of Shoreline and Bathymetric Change in the Coos Estuary, Oregon, USA. Estuaries and Coasts, 2022, 45, 1170-1188.	1.0	8
81	Extreme Water Levels, Wave Runup and Coastal Erosion. , 1997, , 2793.		7
82	Simulating dune evolution on managed coastlines: Exploring management options with the Coastal Recovery from Storms Tool (CReST). Shore and Beach, 2019, , 36-43.	0.2	7
83	El NiÃ±o and La NiÃ±a: Erosion Processes and Impacts. , 2001, , 2414.		6
84	Mixed Sediment Beach Processes: Kachemak Bay, Alaska. , 2007, , 463.		4
85	Implementing Regional Sediment Management to Sustain Navigation at an Energetic Tidal Inlet. , 2007, , .		4
86	The relative role of constructive and destructive processes in dune evolution on Cape Lookout National Seashore, North Carolina, USA. Earth Surface Processes and Landforms, 2021, 46, 2824-2840.	1.2	4
87	Coastal geomorphology, hazards, and management issues along the Pacific Northwest coast of Oregon and Washington. , 2009, , .		4
88	Sensitivity of Shoreline Change Predictions to Wave Climate Variability along the Southwest Washington Coast, USA. , 2001, , 617.		3
89	Increasing Wave Heights along the Shores of the United States: Climate Controls and Hazards. , 2008, , .		3
90	OBSERVATIONS OF INTERTIDAL BAR WELDING ALONG A HIGH ENERGY, DISSIPATIVE COASTLINE. , 2015, , .		3

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91	Characterizing storm-induced coastal change hazards along the United States West Coast. Scientific Data, 2022, 9, .	2.4	3
92	Modeling Nearshore Morphological Evolution at Seasonal Scale. , 2006, , 1.		2
93	Earth's Changing Climate and Enhanced Erosion of the U.S. Pacific Northwest Coast. , 2011, , .		2
94	Incorporating Uncertainty Associated with Climate Change into Coastal Vulnerability Assessments. , 2011, , .		2
95	U.S. Pacific Northwest Coastal Hazards: Tectonic and Climate Controls. Coastal Research Library, 2013, , 587-674.	0.2	2
96	Exploring the Relationship between Nearshore Morphology and Shoreline Change. , 2001, , .		1
97	Wave Energy Dissipation by Intertidal Sand Waves on a Mixed-Sediment Beach. , 2006, , 1.		1
98	Planning Level Assessment of the Impacts of Sea Level Rise to the California Coast. , 2011, , .		1
99	Runups of Unusual Size: Rogueness and Variability of Swash. Journal of Geophysical Research: Oceans, 2020, 125, e2019JC015186.	1.0	1
100	Shoreface Response to Sediment Deficit. , 2007, , .		0
101	Physical Climate Forces. , 2012, , 10-51.		0
102	Coasts. , 2013, , 67-109.		0