Nathaniel G Plant

List of Publications by Year
in descending order

75 papers	3,420 citations	117571 34 h-index	149623 56 g-index
103 all docs	103 docs citations	103 times ranked	2263 citing authors

#	Article	IF	Citations
1	A simple model for interannual sandbar behavior. Journal of Geophysical Research, 1999, 104, 15755-15776.	3.3	208
2	Intertidal beach profile estimation using video images. Marine Geology, 1997, 140, 1-24.	0.9	174
3	cBathy: A robust algorithm for estimating nearshore bathymetry. Journal of Geophysical Research: Oceans, 2013, 118, 2595-2609.	1.0	166
4	Observations of nearshore crescentic sandbars. Journal of Geophysical Research, 2004, 109, .	3.3	150
5	A Bayesian network to predict coastal vulnerability to sea level rise. Journal of Geophysical Research, 2011, 116, .	3.3	137
6	Analysis of the scale of errors in nearshore bathymetric data. Marine Geology, 2002, 191, 71-86.	0.9	124
7	Beach Wizard: Nearshore bathymetry estimation through assimilation of model computations and remote observations. Coastal Engineering, 2008, 55, 1016-1027.	1.7	114
8	Blind testing of shoreline evolution models. Scientific Reports, 2020, 10, 2137.	1.6	112
9	Evaluation of dynamic coastal response to sea-level rise modifies inundation likelihood. Nature Climate Change, 2016, 6, 696-700.	8.1	105
10	Predicting coastal cliff erosion using a Bayesian probabilistic model. Marine Geology, 2010, 278, 140-149.	0.9	99
11	A review of machine learning applications to coastal sediment transport and morphodynamics. Earth-Science Reviews, 2019, 194, 97-108.	4.0	97
12	The Performance of Shoreline Detection Models Applied to Video Imagery. Journal of Coastal Research, 2007, 233, 658-670.	0.1	89
13	Extended Kalman Filter framework for forecasting shoreline evolution. Geophysical Research Letters, 2012, 39, .	1.5	88
14	Tidal hydrodynamics under future sea level rise and coastal morphology in the Northern Gulf of Mexico. Earth's Future, 2016, 4, 159-176.	2.4	85
15	Probabilistic prediction of barrierâ€island response to hurricanes. Journal of Geophysical Research, 2012, 117, .	3.3	83
16	Fluid acceleration effects on suspended sediment transport in the swash zone. Journal of Geophysical Research, 2003, 108, .	3.3	81
17	Role of morphologic feedback in surf zone sandbar response. Journal of Geophysical Research, 2001, 106, 973-989.	3.3	66
18	Ocean Wavenumber Estimation From Wave-Resolving Time Series Imagery. IEEE Transactions on Geoscience and Remote Sensing, 2008, 46, 2644-2658.	2.7	65

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19	Bridging groundwater models and decision support with a Bayesian network. Water Resources Research, 2013, 49, 6459-6473.	1.7	63
20	Inundation of a barrier island (Chandeleur Islands, Louisiana, USA) during a hurricane: Observed waterâ€level gradients and modeled seaward sand transport. Journal of Geophysical Research F: Earth Surface, 2014, 119, 1498-1515.	1.0	58
21	A behavior-oriented dynamic model for sandbar migration and 2DH evolution. Journal of Geophysical Research, 2011, 116, .	3.3	53
22	Decoupling processes and scales of shoreline morphodynamics. Marine Geology, 2016, 381, 42-53.	0.9	53
23	Prediction and assimilation of surf-zone processes using a Bayesian network. Coastal Engineering, 2011, 58, 119-130.	1.7	51
24	Probabilistic assessment of erosion and flooding risk in the northern Gulf of Mexico. Journal of Geophysical Research: Oceans, 2016, 121, 3029-3043.	1.0	51
25	Using a Bayesian network to predict barrier island geomorphologic characteristics. Journal of Geophysical Research F: Earth Surface, 2015, 120, 2452-2475.	1.0	49
26	Effects of seaâ€level rise on barrier island groundwater system dynamics â€" ecohydrological implications. Ecohydrology, 2014, 7, 1064-1071.	1.1	47
27	A dynamical attractor governs beach response to storms. Geophysical Research Letters, 2006, 33, .	1.5	46
28	Coupling centennialâ€scale shoreline change to seaâ€level rise and coastal morphology in the Gulf of Mexico using a Bayesian network. Earth's Future, 2016, 4, 143-158.	2.4	45
29	The influence of bed friction variability due to land cover on storm-driven barrier island morphodynamics. Coastal Engineering, 2018, 132, 82-94.	1.7	44
30	Scaling coastal dune elevation changes across stormâ€impact regimes. Geophysical Research Letters, 2014, 41, 2899-2906.	1.5	43
31	Prediction skill of nearshore profile evolution models. Journal of Geophysical Research, 2004, 109, .	3.3	40
32	A cross-validation package driving Netica with python. Environmental Modelling and Software, 2015, 63, 14-23.	1.9	38
33	Morphologic properties derived from a simple cross-shore sediment transport model. Journal of Geophysical Research, 2001, 106, 945-958.	3.3	35
34	The effect of bathymetric filtering on nearshore process model results. Coastal Engineering, 2009, 56, 484-493.	1.7	34
35	The influence of the Atlantic Warm Pool on the Florida panhandle sea breeze. Journal of Geophysical Research, 2011, 116, .	3.3	34
36	Assessing mobility and redistribution patterns of sand and oil agglomerates in the surf zone. Marine Pollution Bulletin, 2014, 80, 200-209.	2.3	33

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37	Predictions of barrier island berm evolution in a time‐varying storm climatology. Journal of Geophysical Research F: Earth Surface, 2014, 119, 300-316.	1.0	32
38	Forecasting Hurricane Impact on Coastal Topography. Eos, 2010, 91, 65.	0.1	31
39	The Roles of Storminess and Sea Level Rise in Decadal Barrier Island Evolution. Geophysical Research Letters, 2020, 47, e2020GL089370.	1.5	28
40	Dynamic modeling of barrier island response to hurricane storm surge under future sea level rise. Climatic Change, 2018, 149, 413-425.	1.7	27
41	A Bayesian network approach to predicting nest presence of the federally-threatened piping plover (Charadrius melodus) using barrier island features. Ecological Modelling, 2014, 276, 38-50.	1.2	26
42	Prediction and assimilation of surf-zone processes using a Bayesian network. Coastal Engineering, 2011, 58, 256-266.	1.7	25
43	On cross‐shore migration and equilibrium states of nearshore sandbars. Journal of Geophysical Research, 2010, 115, .	3.3	24
44	Changes in erosion and flooding risk due to long‐term and cyclic oceanographic trends. Geophysical Research Letters, 2015, 42, 2943-2950.	1.5	23
45	Beach response to a fixed sand bypassing system. Coastal Engineering, 2013, 73, 28-42.	1.7	19
46	Short-term sandbar variability based on video imagery: Comparison between Time–Average and Time–Variance techniques. Marine Geology, 2011, 289, 122-134.	0.9	17
47	Combining Numerical and Statistical Models to Predict Storm‐Induced Dune Erosion. Journal of Geophysical Research F: Earth Surface, 2019, 124, 1817-1834.	1.0	17
48	How well can wave runup be predicted? Comment on Laudier et al. (2011) and Stockdon et al. (2006). Coastal Engineering, 2015, 102, 44-48.	1.7	14
49	Rapid, Remote Assessment of Hurricane Matthew Impacts Using Four-Dimensional Structure-from-Motion Photogrammetry. Journal of Coastal Research, 2018, 34, 1303.	0.1	14
50	A framework for modeling scenario-based barrier island storm impacts. Coastal Engineering, 2018, 138, 98-112.	1.7	13
51	A Probabilistic Expert System Approach for Sea Mine Burial Prediction. IEEE Journal of Oceanic Engineering, 2007, 32, 260-272.	2.1	11
52	Using a Bayesian network to understand the importance of coastal storms and undeveloped landscapes for the creation and maintenance of early successional habitat. PLoS ONE, 2019, 14, e0209986.	1.1	11
53	Smartphone technologies and Bayesian networks to assess shorebird habitat selection. Wildlife Society Bulletin, 2017, 41, 666-677.	1.6	10
54	Field Observations of Alongshore Runup Variability Under Dissipative Conditions in the Presence of a Shoreline Sandwave. Journal of Geophysical Research: Oceans, 2018, 123, 6800-6817.	1.0	10

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55	Instantaneous energetics sediment transport model calibration. Coastal Engineering, 2005, 52, 647-653.	1.7	7
56	USGS iCoast -- did the coast change?. , 2014, , .		7
57	Nearshore dynamics of artificial sand and oil agglomerates. Marine Pollution Bulletin, 2015, 96, 344-355.	2.3	6
58	Velocity estimation using a Bayesian network in a critical-habitat reach of the Kootenai River, Idaho. Water Resources Research, 2013, 49, 5865-5879.	1.7	5
59	Development and Application of an Empirical Dune Growth Model for Evaluating Barrier Island Recovery from Storms. Journal of Marine Science and Engineering, 2020, 8, 977.	1.2	5
60	Piping plovers demonstrate regional differences in nesting habitat selection patterns along the U.S. Atlantic coast. Ecosphere, 2021, 12, e03418.	1.0	5
61	Predicting surf zone injuries along the Delaware coast using a Bayesian network. Natural Hazards, 2019, 98, 379-401.	1.6	4
62	Relationships between regional coastal land cover distributions and elevation reveal data uncertainty in a sea-level rise impacts model. Earth Surface Dynamics, 2019, 7, 429-438.	1.0	4
63	Probabilistic patterns of inundation and biogeomorphic changes due to sea-level rise along the northeastern U.S. Atlantic coast. Landscape Ecology, 2021, 36, 223-241.	1.9	4
64	Satellite-Derived Barrier Response and Recovery Following Natural and Anthropogenic Perturbations, Northern Chandeleur Islands, Louisiana. Remote Sensing, 2021, 13, 3779.	1.8	4
65	Predicted Sea–Level Rise–Driven Biogeomorphological Changes on Fire Island, New York: Implications for People and Plovers. Earth's Future, 2022, 10, .	2.4	3
66	A pragmatic approach for comparing species distribution models to increasing confidence in managing piping plover habitat. Conservation Science and Practice, 2020, 2, e150.	0.9	2
67	Interannual Shoreline Variations at Duck, NC, USA. , 1997, , 3521.		1
68	A probabilistic approach for mine burial prediction. , 2004, , .		1
69	Self-Organization in Surf Zone Morphodynamics: Alongshore Uniform Instabilities. , 2001, , .		1
70	Nonlinear Interaction of Nearshore Morphology. , 2001, , 2624.		0
71	Reply to comment by T. J. O'Hare and D. A. Huntley on "Morphologic properties derived from a simple cross-shore sediment transport model". Journal of Geophysical Research, 2006, 111, .	3.3	0
72	Morphologic Prediction from Coupled Grain-Scale and Equilibrium-Scale Models. , 2006, , 1.		0

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73	MergeBathy (2015). SoftwareX, 2018, 7, 180-183.	1.2	0
74	Nearshore Morphology Characterization Based on a Predictive Model for Sandbar Migration. , 2001, , .		0
75	EVALUATION OF NEARSHORE PROFILE PREDICTIONS. , 2003, , .		0