

Nicholas Dodd

List of Publications by Year in descending order

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57
papers

1,317
citations

304743

22
h-index

361022

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58
all docs

58
docs citations

58
times ranked

698
citing authors

#	ARTICLE	IF	CITATIONS
1	A logarithmic bottom boundary layer model for the unsteady and non-uniform swash flow. Coastal Engineering, 2022, 172, 104048.	4.0	2
2	Potential regulatory approaches on the environmental impacts of photovoltaics: Expected improvements and impacts on technological innovation. Progress in Photovoltaics: Research and Applications, 2021, 29, 83-97.	8.1	3
3	Numerical modelling of intra-wave sediment transport on sandy beaches using a non-hydrostatic, wave-resolving model. Ocean Dynamics, 2021, 71, 1-20.	2.2	9
4	Numerical Modeling of Flow and Bed Evolution of Bichromatic Wave Groups on an Intermediate Beach Using Nonhydrostatic XBeach. Journal of Waterway, Port, Coastal and Ocean Engineering, 2020, 146, .	1.2	18
5	Swash zone morphodynamic modelling including sediment entrained by bore-generated turbulence. Advances in Water Resources, 2020, 146, 103756.	3.8	4
6	Experimental Analysis of Wave Overtopping: A New Small Scale Laboratory Dataset for the Assessment of Uncertainty for Smooth Sloped and Vertical Coastal Structures. Journal of Marine Science and Engineering, 2019, 7, 217.	2.6	22
7	Quasi-exact solution of the Riemann problem for generalised dam-break over a mobile initially flat bed. Journal of Engineering Mathematics, 2019, 115, 99-119.	1.2	1
8	Surface-groundwater flow numerical model for barrier beach with exfiltration incorporated bottom boundary layer model. Coastal Engineering, 2019, 146, 47-64.	4.0	7
9	Riemann solution for a class of morphodynamic shallow water dam-break problems. Journal of Fluid Mechanics, 2018, 835, 1022-1047.	3.4	3
10	On the Application of Mega-Nourishment in the UK. , 2018, , .		0
11	Numerical modelling of the flow and bed evolution of a single bore-driven swash event on a coarse sand beach. Coastal Engineering, 2018, 142, 62-76.	4.0	11
12	Coastal morphodynamical modelling in nonlinear shallow water framework using a coordinate transformation method. Advances in Water Resources, 2017, 107, 326-335.	3.8	2
13	Advances in numerical modelling of swash zone dynamics. Coastal Engineering, 2016, 115, 26-41.	4.0	69
14	Intra-swash hydrodynamics and sediment flux for dambreak swash on coarse-grained beaches. Coastal Engineering, 2016, 112, 113-130.	4.0	25
15	Morphodynamical modelling of field-scale swash events. Coastal Engineering, 2016, 115, 42-57.	4.0	16
16	The Uncertainty in the Prediction of the Distribution of Individual Wave Overtopping Volumes Using a Nonlinear Shallow Water Equation Solver. Journal of Coastal Research, 2016, 320, 946-953.	0.3	2
17	The morphodynamics of a swash event on an erodible beach. Journal of Fluid Mechanics, 2015, 762, 110-140.	3.4	32
18	Absorbingâ€“generating seaward boundary conditions for fully-coupled hydro-morphodynamical solvers. Coastal Engineering, 2015, 99, 96-108.	4.0	5

#	ARTICLE	IF	CITATIONS
19	Understanding coastal morphodynamic patterns from depth-averaged sediment concentration. <i>Reviews of Geophysics</i> , 2015, 53, 362-410.	23.0	59
20	Net beach change in the swash zone: A numerical investigation. <i>Advances in Water Resources</i> , 2013, 53, 12-22.	3.8	26
21	An efficient and flexible solver for the simulation of the morphodynamics of fast evolving flows on coarse sediment beaches. <i>International Journal for Numerical Methods in Fluids</i> , 2012, 69, 859-877.	1.6	29
22	A 1D Roe decomposition of a system of equations governing wave height transformation. <i>International Journal for Numerical Methods in Fluids</i> , 2012, 69, 1271-1282.	1.6	0
23	Impact of a uniform bore on an erodible beach. <i>Coastal Engineering</i> , 2012, 60, 326-333.	4.0	15
24	Experimental study of bore-driven swash hydrodynamics on impermeable rough slopes. <i>Coastal Engineering</i> , 2012, 60, 149-166.	4.0	69
25	Development of crescentic bars for a periodically perturbed initial bathymetry. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	15
26	Non linear shallow water modelling of bore-driven swash: Description of the bottom boundary layer. <i>Coastal Engineering</i> , 2011, 58, 463-477.	4.0	43
27	Beach-face evolution in the swash zone. <i>Journal of Fluid Mechanics</i> , 2010, 661, 316-340.	3.4	33
28	A field test of a linear stability model for crescentic bars. <i>Coastal Engineering</i> , 2010, 57, 41-51.	4.0	13
29	Mechanisms controlling crescentic bar amplitude. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	35
30	Beach cusps and inner surf zone processes: growth or destruction? A case study of Trafalgar Beach (Cádiz, Spain). <i>Scientia Marina</i> , 2010, 74, 539-553.	0.6	10
31	On the role of shoreline boundary conditions in wave overtopping modelling with non-linear shallow water equations. <i>Coastal Engineering</i> , 2009, 56, 1061-1067.	4.0	11
32	Shoreline motion in nonlinear shallow water coastal models. <i>Coastal Engineering</i> , 2009, 56, 495-505.	4.0	31
33	Floating grid characteristics method for unsteady flow over a mobile bed. <i>Computers and Fluids</i> , 2009, 38, 899-909.	2.5	23
34	Stabilizing effect of random waves on rip currents. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	3
35	91. THE ROLE OF THE DEPTH-AVERAGED CONCENTRATION IN COASTAL MORPHODYNAMICS. , 2009, , .		2
36	137. FORMATION AND LONG-TERM EVOLUTION OF BEACH CUSPS WITH TRACKING PARTICLE MOVEMENT. , 2009, , .		0

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37	Use of numerical models to study land-based sedimentation and subsequent nearshore morphological evolution. Coastal Engineering, 2008, 55, 601-621.	4.0	8
38	Rhythmic surf zone bars and morphodynamic self-organization. Coastal Engineering, 2008, 55, 622-641.	4.0	53
39	Modelling the formation and the long-term behavior of rip channel systems from the deformation of a longshore bar. Journal of Geophysical Research, 2008, 113, .	3.3	56
40	On beach cusp formation. Journal of Fluid Mechanics, 2008, 597, 145-169.	3.4	54
41	Nonlinear Shallow Water Equation Modeling for Coastal Engineering. Journal of Waterway, Port, Coastal and Ocean Engineering, 2008, 134, 104-120.	1.2	81
42	(Un)predictability in rip channel systems. Geophysical Research Letters, 2007, 34, .	4.0	43
43	Linear evolution of a shoreface nourishment. Coastal Engineering, 2007, 54, 417-431.	4.0	11
44	Physics of nearshore bed pattern formation under regular or random waves. Journal of Geophysical Research, 2006, 111, .	3.3	15
45	Evolution of Beach Cusps. , 2006, , .		1
46	Numerical approaches for 1D morphodynamic modelling. Coastal Engineering, 2005, 52, 691-707.	4.0	36
47	Modeling Flow In and Above a Porous Beach. Journal of Waterway, Port, Coastal and Ocean Engineering, 2004, 130, 223-233.	1.2	32
48	A subcritical instability of wave-driven alongshore currents. Journal of Geophysical Research, 2004, 109, .	3.3	4
49	Morphodynamic modelling of rip channel growth. Coastal Engineering, 2002, 45, 199-221.	4.0	73
50	Shear instabilities of wave-driven alongshore currents. Reviews of Geophysics, 2000, 38, 437-463.	23.0	15
51	Numerical Model of Wave Run-Up, Overtopping, and Regeneration. Journal of Waterway, Port, Coastal and Ocean Engineering, 1998, 124, 73-81.	1.2	117
52	A note on spatial modes in longshore current shear instabilities. Journal of Geophysical Research, 1996, 101, 22715-22726.	3.3	7
53	Efficient higher-order finite-difference schemes for parabolic models. Coastal Engineering, 1996, 28, 57-92.	4.0	0
54	On the destabilization of a longshore current on a plane beach: Bottom shear stress, critical conditions, and onset of instability. Journal of Geophysical Research, 1994, 99, 811.	3.3	26

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55	Reflective Properties of Parabolic Approximations in Shallow Water Wave Propagation. SIAM Journal on Applied Mathematics, 1991, 51, 635-657.	1.8	2
56	Slow-time modulation of finite-depth nonlinear water waves: Relation to longshore current oscillations. Journal of Geophysical Research, 1991, 96, 7105-7113.	3.3	5
57	Growth and energetics of shear waves in the nearshore. Journal of Geophysical Research, 1990, 95, 16075-16083.	3.3	30