Per Aage Madsen

List of Publications by Year
in descending order

70	5,184	117625	138484
papers	citations	34	58
		h-index	g-index

71	71	71	1533
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A new form of the Boussinesq equations with improved linear dispersion characteristics. Part 2. A slowly-varying bathymetry. Coastal Engineering, 1992, 18, 183-204.	4.0	629
2	A new form of the Boussinesq equations with improved linear dispersion characteristics. Coastal Engineering, 1991, 15, 371-388.	4.0	523
3	A Boussinesq model for waves breaking in shallow water. Coastal Engineering, 1993, 20, 185-202.	4.0	302
4	A new Boussinesq method for fully nonlinear waves from shallow to deep water. Journal of Fluid Mechanics, 2002, 462, 1-30.	3.4	290
5	Surf zone dynamics simulated by a Boussinesq type model. Part I. Model description and cross-shore motion of regular waves. Coastal Engineering, 1997, 32, 255-287.	4.0	279
6	On the solitary wave paradigm for tsunamis. Journal of Geophysical Research, 2008, 113, .	3.3	278
7	Higher–order Boussinesq–type equations for surface gravity waves: derivation and analysis. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1998, 356, 3123-3181.	3.4	256
8	Boussinesq-type formulations for fully nonlinear and extremely dispersive water waves: derivation and analysis. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2003, 459, 1075-1104.	2.1	173
9	Bound waves and triad interactions in shallow water. Ocean Engineering, 1993, 20, 359-388.	4.3	140
10	A new approach to high-order Boussinesq models. Journal of Fluid Mechanics, 1999, 399, 319-333.	3.4	138
11	Analytical solutions for tsunami runup on a plane beach: single waves, N-waves and transient waves. Journal of Fluid Mechanics, 2010, 645, 27-57.	3.4	138
12	A Boussinesq-type method for fully nonlinear waves interacting with a rapidly varying bathymetry. Coastal Engineering, 2006, 53, 487-504.	4.0	129
13	Turbulent bores and hydraulic jumps. Journal of Fluid Mechanics, 1983, 129, 1.	3.4	128
14	Further enhancements of Boussinesq-type equations. Coastal Engineering, 1995, 26, 1-14.	4.0	118
15	Wave reflection from a vertical permeable wave absorber. Coastal Engineering, 1983, 7, 381-396.	4.0	114
16	Surf zone dynamics simulated by a Boussinesq type model. Part II: surf beat and swash oscillations for wave groups and irregular waves. Coastal Engineering, 1997, 32, 289-319.	4.0	114
17	A turbulent bore on a beach. Journal of Fluid Mechanics, 1984, 148, 73-96.	3.4	99
18	Tsunami generation, propagation, and run-up with a high-order Boussinesq model. Coastal Engineering, 2009, 56, 747-758.	4.0	92

#	Article	IF	Citations
19	Run-up of tsunamis and long waves in terms of surf-similarity. Coastal Engineering, 2008, 55, 209-223.	4.0	90
20	An efficient finite-difference approach to the mild-slope equation. Coastal Engineering, 1987, 11, 329-351.	4.0	80
21	Simulation of nonlinear wave run-up with a high-order Boussinesq model. Coastal Engineering, 2008, 55, 139-154.	4.0	71
22	Wave-current interaction based on an enhanced Boussinesq approach. Coastal Engineering, 1998, 33, 11-39.	4.0	69
23	Surf zone dynamics simulated by a Boussinesq type model. III. Wave-induced horizontal nearshore circulations. Coastal Engineering, 1998, 33, 155-176.	4.0	69
24	A REVIEW OF BOUSSINESQ-TYPE EQUATIONS FOR SURFACE GRAVITY WAVES. Series on Quality, Reliability and Engineering Statistics, 1999, , 1-94.	0.2	67
25	Numerical simulation of lowest-order short-crested wave instabilities. Journal of Fluid Mechanics, 2006, 563, 415.	3.4	53
26	Third-order theory for bichromatic bi-directional water waves. Journal of Fluid Mechanics, 2006, 557, 369.	3.4	52
27	Nodal DG-FEM solution of high-order Boussinesq-type equations. Journal of Engineering Mathematics, 2007, 56, 351-370.	1.2	48
28	Third-order theory for multi-directional irregular waves. Journal of Fluid Mechanics, 2012, 698, 304-334.	3.4	48
29	Deterministic and stochastic evolution equations for fully dispersive and weakly nonlinear waves. Coastal Engineering, 1999, 38, 1-24.	4.0	47
30	A discussion of artificial compressibility. Coastal Engineering, 2006, 53, 93-98.	4.0	45
31	Wave transformation in the nearshore zone: A review. Coastal Engineering, 1993, 21, 5-39.	4.0	44
32	Numerical simulation of tidal bores and hydraulic jumps. Coastal Engineering, 2005, 52, 409-433.	4.0	44
33	Velocity potential formulations of highly accurate Boussinesq-type models. Coastal Engineering, 2009, 56, 467-478.	4.0	43
34	A numerical study of crescent waves. Journal of Fluid Mechanics, 2004, 513, 309-341.	3.4	39
35	Performance of a numerical short-wave model. Coastal Engineering, 1984, 8, 73-93.	4.0	35
36	Accuracy and convergence of velocity formulations for water waves in the framework of Boussinesq theory. Journal of Fluid Mechanics, 2003, 477, .	3.4	34

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37	Current Effects on Nonlinear Interactions of Shallow-Water Waves. Journal of Waterway, Port, Coastal and Ocean Engineering, 1999, 125, 176-186.	1.2	32
38	Surf Similarity and Solitary Wave Runup. Journal of Waterway, Port, Coastal and Ocean Engineering, 2008, 134, 195-198.	1.2	30
39	Nonlinear wave–structure interactions with a high-order Boussinesq model. Coastal Engineering, 2005, 52, 655-672.	4.0	28
40	Boussinesq evolution equations: numerical efficiency, breaking and amplitude dispersion. Coastal Engineering, 2004, 51, 1117-1142.	4.0	25
41	Short-crested waves in deep water: a numerical investigation of recent laboratory experiments. Journal of Fluid Mechanics, 2006, 559, 391.	3.4	24
42	Wave transformation models with exact second-order transfer. European Journal of Mechanics, B/Fluids, 2005, 24, 659-682.	2.5	23
43	Linear and non-linear stability analysis for finite difference discretizations of high-order Boussinesq equations. International Journal for Numerical Methods in Fluids, 2004, 45, 751-773.	1.6	15
44	On the evolution and run-up of tsunamis. Journal of Hydrodynamics, 2010, 22, 1-6.	3.2	10
45	On truncated Taylor series and the position of their spurious zeros. Applied Numerical Mathematics, 2006, 56, 91-104.	2.1	8
46	HIGH-ORDER BOUSSINESQ-TYPE MODELLING OF NONLINEAR WAVE PHENOMENA IN DEEP AND SHALLOW WATER. Series on Quality, Reliability and Engineering Statistics, 2010, , 245-285.	0.2	8
47	On the statistical properties of surface elevation, velocities and accelerations in multi-directional irregular water waves. Journal of Fluid Mechanics, 2021, 910, .	3.4	8
48	Trough instabilities in Boussinesq formulations for water waves. Journal of Fluid Mechanics, 2020, 889, .	3.4	7
49	Simulation of three‐dimensional nonlinear water waves using a pseudospectral volumetric method with an artificial boundary condition. International Journal for Numerical Methods in Fluids, 2021, 93, 1843-1870.	1.6	7
50	On the statistical properties of inertia and drag forces in nonlinear multi-directional irregular water waves. Journal of Fluid Mechanics, 2021, 916, .	3.4	6
51	The dynamics of wave induced ship motions in shallow water. Ocean Engineering, 1981, 8, 443-479.	4.3	5
52	Transient waves generated by a moving bottom obstacle: a new near-field solution. Journal of Fluid Mechanics, 2012, 697, 237-272.	3.4	4
53	A new $\ddot{I}_f$‐transform based Fourier‐Legendre‐Galerkin model for nonlinear water waves. International Journal for Numerical Methods in Fluids, 2021, 93, 220-248.	1.6	3
54	Analytical and numerical models for tsunami run-up. , 2007, , 209-236.		3

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55	On the accuracy and applicability of a new implicit Taylor method and the high-order spectral method on steady nonlinear waves. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200436.	2.1	3
56	Boussinesq Equations with Improved Doppler Shift and Dispersion for Wave/Current Interaction. , 1997, , 1060.		2
57	Nearshore Wave Dynamics Simulated by Boussinesq Type Models. , 1999, , 272.		2
58	On the Accuracy of Boussinesq Evolution Equations. , 2001, , 162.		2
59	Wave Breaking and Induced Nearshore Circulations. , 1995, , .		2
60	A CRITICAL DISCUSSION OF THE SOLITARY WAVE PARADIGM FOR TSUNAMIS. , 2009, , .		2
61	Nonlinear wave dynamics in shallow water. Physica Scripta, 1996, T67, 86-89.	2.5	1
62	Potential dominance of oscillating crescent waves in finite width tanks. Physics of Fluids, 2005, 17, 038102.	4.0	1
63	Uniform asymptotic approximations for transient waves due to an initial disturbance. Journal of Geophysical Research: Oceans, 2016, 121, 60-84.	2.6	1
64	Nonlinear Transformation of Irregular Waves in Shallow Water. , 1993, , 460.		0
65	A New Formulation of Deterministic and Stochastic Evolution Equations for Three-Wave Interactions Involving Fully Dispersive Waves. , 1999, , 161.		0
66	<title>Bichromatic water waves in finite depth</title>. , 2006, 5975, 352.		0
67	NUMERICAL SIMULATION OF EXTREME EVENTS FROM FOCUSED DIRECTIONALLY SPREAD WAVEFIELDS. , 2007, , .		0
68	COMPUTATION OF NONLINEAR WATER WAVES WITH A HIGH-ORDER BOUSSINESQ MODEL. , 2005, , .		0
69	IMPROVED VELOCITY POTENTIAL FORMULATIONS OF HIGHLY ACCURATE BOUSSINESQ-TYPE MODELS. , 2009, , .		0
70	Mean and variance of the Eulerian and Lagrangian horizontal velocities induced by nonlinear multi-directional irregular water waves. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, .	2.1	0