

Guillaume Ducrozet

List of Publications by Year in descending order

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55
papers

986
citations

471509

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h-index

454955

30
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61
all docs

61
docs citations

61
times ranked

425
citing authors

#	ARTICLE	IF	CITATIONS
1	A modified High-Order Spectral method for wavemaker modeling in a numerical wave tank. <i>European Journal of Mechanics, B/Fluids</i> , 2012, 34, 19-34.	2.5	114
2	HOS-ocean: Open-source solver for nonlinear waves in open ocean based on High-Order Spectral method. <i>Computer Physics Communications</i> , 2016, 203, 245-254.	7.5	110
3	3-D HOS simulations of extreme waves in open seas. <i>Natural Hazards and Earth System Sciences</i> , 2007, 7, 109-122.	3.6	91
4	Nonlinear Spectral Synthesis of Soliton Gas in Deep-Water Surface Gravity Waves. <i>Physical Review Letters</i> , 2020, 125, 264101.	7.8	50
5	Development and validation of a non-linear spectral model for water waves over variable depth. <i>European Journal of Mechanics, B/Fluids</i> , 2016, 57, 115-128.	2.5	38
6	A non-linear wave decomposition model for efficient wave-structure interaction. Part A: Formulation, validations and analysis. <i>Journal of Computational Physics</i> , 2014, 257, 863-883.	3.8	37
7	Simulation of breaking waves using the high-order spectral method with laboratory experiments: wave-breaking energy dissipation. <i>Ocean Dynamics</i> , 2018, 68, 65-89.	2.2	35
8	Applicability and limitations of highly non-linear potential flow solvers in the context of water waves. <i>Ocean Engineering</i> , 2017, 142, 233-244.	4.3	32
9	Simulation of breaking waves using the high-order spectral method with laboratory experiments: Wave-breaking onset. <i>Ocean Modelling</i> , 2017, 119, 94-104.	2.4	30
10	A comparative study of two fast nonlinear free-surface water wave models. <i>International Journal for Numerical Methods in Fluids</i> , 2012, 69, 1818-1834.	1.6	28
11	From modulational instability to focusing dam breaks in water waves. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	28
12	TIME DOMAIN SIMULATION OF NONLINEAR WATER WAVES USING SPECTRAL METHODS. <i>Series on Quality, Reliability and Engineering Statistics</i> , 2010, , 129-164.	0.2	27
13	Influence of varying bathymetry in rogue wave occurrence within unidirectional and directional sea-states. <i>Journal of Ocean Engineering and Marine Energy</i> , 2017, 3, 309-324.	1.7	21
14	Experimental and numerical assessment of deterministic nonlinear ocean waves prediction algorithms using non-uniformly sampled wave gauges. <i>Ocean Engineering</i> , 2020, 212, 107659.	4.3	21
15	Weakly nonlinear modeling of submerged wave energy converters. <i>Applied Ocean Research</i> , 2018, 75, 201-222.	4.1	20
16	Comparison of wave modeling methods in CFD solvers for ocean engineering applications. <i>Ocean Engineering</i> , 2019, 188, 106237.	4.3	19
17	High-order finite difference solution for 3D nonlinear wave-structure interaction. <i>Journal of Hydrodynamics</i> , 2010, 22, 225-230.	3.2	18
18	On the equivalence of unidirectional rogue waves detected in periodic simulations and reproduced in numerical wave tanks. <i>Ocean Engineering</i> , 2016, 117, 346-358.	4.3	17

#	ARTICLE	IF	CITATIONS
19	Spectral Wave Explicit Navier-Stokes Equations for wave-structure interactions using two-phase Computational Fluid Dynamics solvers. <i>Ocean Engineering</i> , 2021, 221, 108513.	4.3	17
20	Propagation of 3D nonlinear waves over an elliptical mound with a High-Order Spectral method. <i>European Journal of Mechanics, B/Fluids</i> , 2017, 63, 9-24.	2.5	16
21	Focused wave interactions with floating structures: a blind comparative study. <i>Proceedings of the Institution of Civil Engineers: Engineering and Computational Mechanics</i> , 2021, 174, 46-61.	0.4	16
22	Time-reversal of nonlinear waves: Applicability and limitations. <i>Physical Review Fluids</i> , 2016, 1, .	2.5	15
23	Emergence of Peregrine solitons in integrable turbulence of deep water gravity waves. <i>Physical Review Fluids</i> , 2020, 5, .	2.5	15
24	An improved Lagrangian model for the time evolution of nonlinear surface waves. <i>Journal of Fluid Mechanics</i> , 2019, 876, 527-552.	3.4	13
25	Prediction and manipulation of hydrodynamic rogue waves via nonlinear spectral engineering. <i>Physical Review Fluids</i> , 2022, 7, .	2.5	13
26	A Non-Linear Potential Model to Predict Large-Amplitudes-Motions: Application to the SEAREV Wave Energy Converter. , 2007, , 529.		12
27	Statistics of long-crested extreme waves in single and mixed sea states. <i>Ocean Dynamics</i> , 2021, 71, 21-42.	2.2	12
28	Varying ocean wave statistics emerging from a single energy spectrum in an experimental wave tank. <i>Ocean Engineering</i> , 2022, 246, 110375.	4.3	12
29	Experimental reconstruction of extreme sea waves by time reversal principle. <i>Journal of Fluid Mechanics</i> , 2020, 884, .	3.4	11
30	Nonlinear deterministic sea wave prediction using instantaneous velocity profiles. <i>Ocean Engineering</i> , 2021, 220, 108492.	4.3	11
31	Transformation of envelope solitons on a bottom step. <i>Physics of Fluids</i> , 2021, 33, .	4.0	9
32	Proof of the equivalence of Tanizawa's "Berkvens"™ and Cointe's "van Daalen's formulations for the time derivative of the velocity potential for non-linear potential flow solvers. <i>Applied Ocean Research</i> , 2017, 63, 184-199.	4.1	7
33	An experimental and numerical study on breather solutions for surface waves in the intermediate water depth. <i>Ocean Engineering</i> , 2017, 133, 262-270.	4.3	7
34	Predicting the occurrence of rogue waves in the presence of opposing currents with a high-order spectral method. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	7
35	Generation of Regular and Irregular Waves in Navier-Stokes CFD Solvers by Matching With the Nonlinear Potential Wave Solution at the Boundaries. , 2018, , .		6
36	Relation between occurrence probability of freak waves and kurtosis/skewness in unidirectional wave trains under single-peak spectra. <i>Ocean Engineering</i> , 2022, 248, 110813.	4.3	6

#	ARTICLE	IF	CITATIONS
37	Deterministic Reconstruction and Prediction of a Non-Linear Wave Field Using Probe Data. , 2008, , .		5
38	Comparison of Fully Nonlinear and Weakly Nonlinear Potential Flow Solvers for the Study of Wave Energy Converters Undergoing Large Amplitude Motions. , 2014, , .		5
39	Efficient Hybrid-Spectral Model for Fully Nonlinear Numerical Wave Tank. , 2013, , .		4
40	A Coupled SPH-Spectral Method for the Simulation of Wave Train Impacts on a FPSO. , 2014, , .		4
41	Progress in Coupling Potential Wave Models and Two-Phase Solvers With the SWENSE Methodology. , 2018, , .		4
42	Phase-Resolved Reconstruction Algorithm and Deterministic Prediction of Nonlinear Ocean Waves From Spatio-Temporal Optical Measurements. , 2018, , .		3
43	Statistics of rogue waves in isotropic wave fields. Journal of Fluid Mechanics, 2022, 943, .	3.4	3
44	Nonlinear dispersion relation in integrable turbulence. Scientific Reports, 2022, 12, .	3.3	3
45	Galilean-transformed solitons and supercontinuum generation in dispersive media. Physica D: Nonlinear Phenomena, 2022, 439, 133342.	2.8	2
46	Progresses in the Development of a Weakly-Nonlinear Wave Body Interaction Model Based on the Weak-Scatterer Approximation. , 2015, , .		1
47	A Comparative Study of Wave Breaking Models in a High-Order Spectral Model. , 2017, , .		1
48	Development and Validation of a Highly Nonlinear Model for Wave Propagation Over a Variable Bathymetry. , 2015, , .		1
49	Experimental reproduction of an extreme sea state in two wave tanks at various generation scales. , 2022, , .		1
50	Experimental and Numerical Comparative Investigation of Pressure Fields Under Steep 2D Waves. , 2006, , 579.		0
51	Fully Nonlinear Potential/RANSE Simulation of Wave Interaction With Ships and Marine Structures. , 2008, , .		0
52	Non-Linear Initialization in Three-Dimensional High Order Spectra Deterministic Sea State Modeling. , 2010, , .		0
53	An Integrated Approach for the Representation of Concrete Gravity Based Foundations for Offshore Wind Turbines. , 2013, , .		0
54	Modelisation non-lineaire de propagation de houle sur un fond variable tridimensionnel. Houille Blanche, 2017, 103, 42-48.	0.3	0

#	ARTICLE	IF	CITATIONS
55	Breaking focused wave interaction with cylinder using HOS-OpenFOAM coupling. , 2022, , .		0