Allan Peter Engsig-Karup

List of Publications by Year
in descending order

47 papers	878 citations	567281 15 h-index	477307 29 g-index
50 all docs	50 docs citations	50 times ranked	609 citing authors

#	Article	IF	Citations
1	An efficient flexible-order model for 3D nonlinear water waves. Journal of Computational Physics, 2009, 228, 2100-2118.	3.8	189
2	Spectral/hp element methods: Recent developments, applications, and perspectives. Journal of Hydrodynamics, 2018, 30, 1-22.	3.2	74
3	Spectral Tensor-Train Decomposition. SIAM Journal of Scientific Computing, 2016, 38, A2405-A2439.	2.8	64
4	Nodal DG-FEM solution of high-order Boussinesq-type equations. Journal of Engineering Mathematics, 2007, 56, 351-370.	1.2	48
5	DG-FEM solution for nonlinear wave-structure interaction using Boussinesq-type equations. Coastal Engineering, 2008, 55, 197-208.	4.0	43
6	A massively parallel GPUâ€accelerated model for analysis of fully nonlinear free surface waves. International Journal for Numerical Methods in Fluids, 2012, 70, 20-36.	1.6	43
7	Time domain room acoustic simulations using the spectral element method. Journal of the Acoustical Society of America, 2019, 145, 3299-3310.	1.1	43
8	A non-linear wave decomposition model for efficient waveâ€“structure interaction. Part A: Formulation, validations and analysis. Journal of Computational Physics, 2014, 257, 863-883.	3.8	37
9	A stabilised nodal spectral element method for fully nonlinear water waves. Journal of Computational Physics, 2016, 318, 1-21.	3.8	35
10	A Blind Comparative Study of Focused Wave Interactions with a Fixed FPSO-like Structure (CCP-WSI) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.8	29
11	A comparative study of two fast nonlinear freeâ€surface water wave models. International Journal for Numerical Methods in Fluids, 2012, 69, 1818-1834.	1.6	28
12	On the numerical and computational aspects of non-smoothnesses that occur in railway vehicle dynamics. Mathematics and Computers in Simulation, 2014, 95, 78-97.	4.4	25
13	DeRisk â€” Accurate Prediction of ULS Wave Loads. Outlook and First Results. Energy Procedia, 2016, 94, 379-387.	1.8	24
14	High-order finite difference solution for 3D nonlinear wave-structure interaction. Journal of Hydrodynamics, 2010, 22, 225-230.	3.2	18
15	Sensitivity analysis of the critical speed in railway vehicle dynamics. Vehicle System Dynamics, 2014, 52, 272-286.	3.7	17
16	Physics-informed neural networks for one-dimensional sound field predictions with parameterized sources and impedance boundaries. JASA Express Letters, 2021, 1, .	1.1	14
17	A spectral/<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll" id="d1e1007" altimg="si1.gif"><mml:mi>h</mml:mi><mml:mi>p</mml:mi></mml:math>element depth-integrated model for nonlinear waveâ€“body interaction. Computer Methods in Applied Mechanics and Engineering, 2019, 348, 222-249.	6.6	13
18	Time-domain room acoustic simulations with extended-reacting porous absorbers using the discontinuous Galerkin method. Journal of the Acoustical Society of America, 2020, 148, 2851-2863.	1.1	13

#	Article	IF	Citations
19	Efficient uncertainty quantification of a fully nonlinear and dispersive water wave model with random inputs. Journal of Engineering Mathematics, 2016, 101, 87-113.	1.2	12
20	A Comparative Study on the Nonlinear Interaction Between a Focusing Wave and Cylinder Using State-of-the-art Solvers: Part A. International Journal of Offshore and Polar Engineering, 2021, 31, 1-10.	0.8	10
21	Analysis of efficient preconditioned defect correction methods for nonlinear water waves. International Journal for Numerical Methods in Fluids, 2014, 74, 749-773.	1.6	9
22	A Mixed Eulerianâ€“Lagrangian Spectral Element Method for Nonlinear Wave Interaction with Fixed Structures. Water Waves, 2019, 1, 315-342.	1.0	8
23	The DeRisk database: Extreme design waves for offshore wind turbines. Marine Structures, 2021, 80, 103046.	3.8	8
24	A phenomenological extended-reaction boundary model for time-domain wave-based acoustic simulations under sparse reflection conditions using a wave splitting method. Applied Acoustics, 2021, 172, 107596.	3.3	7
25	A robust WENO scheme for nonlinear waves in a moving reference frame. Journal of Hydrodynamics, 2016, 28, 482-488.	3.2	6
26	Numerical Multilevel Upscaling for Incompressible Flow in Reservoir Simulation: An Element-Based Algebraic Multigrid (AMGe) Approach. SIAM Journal of Scientific Computing, 2017, 39, B102-B137.	2.8	6
27	Nonlinear wave generation using a heaving wedge. Applied Ocean Research, 2021, 108, 102540.	4.1	6
28	Experimental validation and uncertainty quantification in wave-based computational room acoustics. Applied Acoustics, 2021, 178, 107939.	3.3	6
29	A massively scalable distributed multigrid framework for nonlinear marine hydrodynamics. International Journal of High Performance Computing Applications, 2019, 33, 855-868.	3.7	5
30	Uncertainty Quantification in Mooring Cable Dynamics Using Polynomial Chaos Expansions. Journal of Marine Science and Engineering, 2020, 8, 162.	2.6	5
31	Efficient Hybrid-Spectral Model for Fully Nonlinear Numerical Wave Tank. , 2013, , .		4
32	Nonlinear Multigrid for Reservoir Simulation. SPE Journal, 2016, 21, 888-898.	3.1	4
33	A multiscale direct solver for the approximation of flows in high contrast porous media. Journal of Computational and Applied Mathematics, 2019, 359, 88-101.	2.0	4
34	Spectral Element FNPF Simulation of Focused Wave Groups Impacting a Fixed FPSO-type Body. International Journal of Offshore and Polar Engineering, 2019, 29, 141-148.	0.8	4
35	On devising Boussinesq-type models with bounded eigenspectra: One horizontal dimension. Journal of Computational Physics, 2014, 271, 261-280.	3.8	3
36	Multiphase coupling of a reservoir simulator and computational fluid dynamics for accurate near-well flow. Journal of Petroleum Science and Engineering, 2019, 178, 517-527.	4.2	3

#	Article	IF	Citations
37	An efficient pâ€multigrid spectral element model for fully nonlinear water waves and fixed bodies. International Journal for Numerical Methods in Fluids, 2021, 93, 2823-2841.	1.6	3
38	Screening wells by multi-scale grids for multi-stage Markov Chain Monte Carlo simulation. Mathematics and Computers in Simulation, 2018, 151, 15-28.	4.4	2
39	Reduced Order Modeling for Nonlinear PDE-constrained Optimization using Neural Networks. , 2019, , .		2
40	Nonlinear Wave-Body Interaction Using a Mixed-Eulerian-Lagrangian Spectral Element Model. , 2018, , .		2
41	Efficient Uncertainty Quantification and Variance-Based Sensitivity Analysis in Epidemic Modelling using Polynomial Chaos. Mathematical Modelling of Natural Phenomena, 0, , .	2.4	1
42	Oil production optimization of the SOLSORT reservoir. , 2019, , .		0
43	Efficient Solution of the 3D Laplace Problem for Nonlinear Wave-Structure Interaction. , 2008, , .		0
44	IMPROVED VELOCITY POTENTIAL FORMULATIONS OF HIGHLY ACCURATE BOUSSINESQ-TYPE MODELS. , 2009, , .		0
45	High-Order Finite Difference Solution of Euler Equations for Nonlinear Water Waves. , 2012, , .		0
46	On Devising Boussinesq-Type Equations with Bounded Eigenspectra: Two Horizontal Dimensions. Mathematics in Industry, 2016, , 553-560.	0.3	0
47	Numerical Simulations of Peregrine Breathers Using a Spectral Element Model. , 2018, , .		0