Peng-Nan Sun

List of Publications by Year
in descending order

44 papers	2,233 citations	270111 25 h-index	286692 43 g-index
44 all docs	44 docs citations	44 times ranked	857 citing authors

#	Article	IF	Citations
1	A corrected WCSPH scheme with improved interface treatments for the viscous/viscoelastic two-phase flows. Computational Particle Mechanics, 2022, 9, 633-653.	1.5	3
2	Further enhancement of the particle shifting technique: Towards better volume conservation and particle distribution in SPH simulations of violent free-surface flows. Applied Mathematical Modelling, 2022, 101, 214-238.	2.2	38
3	A Review of SPH Techniques for Hydrodynamic Simulations of Ocean Energy Devices. Energies, 2022, 15, 502.	1.6	27
4	Investigation on the Lift Force Induced by the Interceptor and Its Affecting Factors: Experimental Study with Captive Model. Journal of Marine Science and Engineering, 2022, 10, 211.	1.2	3
5	Numerical investigation on the hydrodynamic behavior of a floating breakwater with moon pool through a coupling SPH model. Ocean Engineering, 2022, 248, 110849.	1.9	13
6	Investigation on the bouncing and coalescence behaviors of bubble pairs based on an improved APR-SPH method. Ocean Engineering, 2022, 255, 111401.	1.9	9
7	Numerical investigations on bionic propulsion problems using the multi-resolution Delta-plus SPH model. European Journal of Mechanics, B/Fluids, 2022, 95, 106-121.	1.2	10
8	3D multi-resolution SPH modeling of the water entry dynamics of free-fall lifeboats. Ocean Engineering, 2022, 257, 111648.	1.9	23
9	Application of SPH method in the study of ship capsizing induced by large-scale rising bubble. Ocean Engineering, 2022, 257, 111629.	1.9	3
10	An accurate SPH Volume Adaptive Scheme for modeling strongly-compressible multiphase flows. Part 2: Extension of the scheme to cylindrical coordinates and simulations of 3D axisymmetric problems with experimental validations. Journal of Computational Physics, 2021, 426, 109936.	1.9	19
11	The<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si4.svg"><mml:mi>Î´</mml:mi></mml:math>-ALE-SPH model: An arbitrary Lagrangian-Eulerian framework for the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si4.svg"><mml:mi>Î´</mml:mi></mml:math>-SPH model with particle shifting technique. Computers and Fluids, 2021, 216, 104806.	1.3	54
12	An accurate SPH Volume Adaptive Scheme for modeling strongly-compressible multiphase flows. Part 1: Numerical scheme and validations with basic 1D and 2D benchmarks. Journal of Computational Physics, 2021, 426, 109937.	1.9	17
13	An accurate FSI-SPH modeling of challenging fluid-structure interaction problems in two and three dimensions. Ocean Engineering, 2021, 221, 108552.	1.9	104
14	Numerical investigation on the hydrodynamic performance of a new designed breakwater using smoothed particle hydrodynamic method. Engineering Analysis With Boundary Elements, 2021, 130, 379-403.	2.0	14
15	Study on the wedge penetrating fluid interfaces characterized by different density-ratios: Numerical investigations with a multi-phase SPH model. Ocean Engineering, 2021, 237, 109538.	1.9	23
16	On removing the numerical instability induced by negative pressures in SPH simulations of typical fluidâ€“structure interaction problems in ocean engineering. Applied Ocean Research, 2021, 117, 102938.	1.8	27
17	3D-3C wake field measurement, reconstruction and spatial distribution of a Panamax Bulk using towed underwater 2D-3C SPIV. Applied Ocean Research, 2020, 105, 102437.	1.8	10
18	Ship hull slamming analysis with smoothed particle hydrodynamics method. Applied Ocean Research, 2020, 101, 102268.	1.8	27

#	Article	IF	Citations
19	A multiphase SPH model based on Roeâ€™s approximate Riemann solver for hydraulic flows with complex interface. Computer Methods in Applied Mechanics and Engineering, 2020, 365, 112999.	3.4	44
20	An axisymmetric multiphase SPH model for the simulation of rising bubble. Computer Methods in Applied Mechanics and Engineering, 2020, 366, 113039.	3.4	17
21	Improved particle shifting technology and optimized free-surface detection method for free-surface flows in smoothed particle hydrodynamics. Computer Methods in Applied Mechanics and Engineering, 2019, 357, 112580.	3.4	62
22	Extension of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e1388" altimg="si7.svg"><mml:mi>Î´</mml:mi></mml:math>-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e1393" altimg="si8.svg"><mml:mrow><mml:mi>P</mml:mi><mml:mi>l</mml:mi><mml:mi>u</mml:mi><mml:mi>s</mml:mi></mml:mrow></m model for simulating Vortex-Induced-Vibration problems. Journal of Fluids and Structures, 2019, 90, 19-42.	1.5	34
23	Updated Lagrangian Particle Hydrodynamics (ULPH) modeling and simulation of multiphase flows. Journal of Computational Physics, 2019, 393, 406-437.	1.9	31
24	Study of a complex fluid-structure dam-breaking benchmark problem using a multi-phase SPH method with APR. Engineering Analysis With Boundary Elements, 2019, 104, 240-258.	2.0	102
25	A consistent approach to particle shifting in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll" id="d1e1386" altimg="si213.gif"><mml:mi>Î´</mml:mi></mml:math>-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll" id="d1e1391" altimg="si6.gif"><mml:mi mathvariant="bold-italic">Plus</mml:mi></mml:math>-SPH model. Computer Methods in Applied Mechanics and Engineering, 2019, 348, 912-934.	3.4	117
26	The suction effect during freak wave slamming on a fixed platform deck: Smoothed particle hydrodynamics simulation and experimental study. Physics of Fluids, 2019, 31, .	1.6	70
27	Towards the modeling of the ditching of a ground-effect wing ship within the framework of the SPH method. Applied Ocean Research, 2019, 82, 370-384.	1.8	30
28	A novel non-reflecting boundary condition for fluid dynamics solved by smoothed particle hydrodynamics. Journal of Fluid Mechanics, 2019, 860, 81-114.	1.4	64
29	Viscous Flow Past a NACA0012 Foil Below a Free Surface Through the Delta-Plus-SPH Method. International Journal of Computational Methods, 2019, 16, 1846007.	0.8	10
30	Application of particle splitting method for both hydrostatic and hydrodynamic cases in SPH. Acta Mechanica Sinica/Lixue Xuebao, 2018, 34, 601-613.	1.5	12
31	An accurate and efficient SPH modeling of the water entry of circular cylinders. Applied Ocean Research, 2018, 72, 60-75.	1.8	127
32	Multi-resolution Delta-plus-SPH with tensile instability control: Towards high Reynolds number flows. Computer Physics Communications, 2018, 224, 63-80.	3.0	161
33	Numerical simulation of the self-propulsive motion of a fishlike swimming foil using the Î´+-SPH model. Theoretical and Applied Mechanics Letters, 2018, 8, 115-125.	1.3	47
34	Numerical simulation of a damaged ship cabin flooding in transversal waves with Smoothed Particle Hydrodynamics method. Ocean Engineering, 2018, 165, 336-352.	1.9	47
35	Smoothed particle hydrodynamics and its applications in fluid-structure interactions. Journal of Hydrodynamics, 2017, 29, 187-216.	1.3	158
36	A 3-D SPH model for simulating water flooding of a damaged floating structure. Journal of Hydrodynamics, 2017, 29, 831-844.	1.3	21

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37	Numerical investigation of rising bubbles bursting at a free surface through a multiphase SPH model. Meccanica, 2017, 52, 2665-2684.	1.2	50
38	The <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si86.gif" display="inline" overflow="scroll"><mml:mi>Î´</mml:mi><mml:mi>p</mml:mi><mml:mi>l</mml:mi><mml:mi>u</mml:mi><mml:mi>s</mml:mi></mml:m model: Simple procedures for a further improvement of the SPH scheme. Computer Methods in Applied Mechanics and Engineering, 2017, 315, 25-49.	3.4	237
39	Detection of Lagrangian Coherent Structures in the SPH framework. Computer Methods in Applied Mechanics and Engineering, 2016, 305, 849-868.	3.4	51
40	Numerical simulation of interactions between free surface and rigid body using a robust SPH method. Ocean Engineering, 2015, 98, 32-49.	1.9	126
41	An SPH modeling of bubble rising and coalescing in three dimensions. Computer Methods in Applied Mechanics and Engineering, 2015, 294, 189-209.	3.4	167
42	Numerical simulation on the motion characteristics of freely rising bubbles using smoothed particle hydrodynamics method. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 174701.	0.2	7
43	Investigation of Coalescing and Bouncing of Rising Bubbles Under the Wake Influences Using SPH Method. , 2014, , .		4
44	Investigation on charge parameters of underwater contact explosion based on axisymmetric SPH method. Applied Mathematics and Mechanics (English Edition), 2014, 35, 453-468.	1.9	13