Biao Huang

List of Publications by Year
in descending order

109 papers	3,276 citations	147801 31 h-index	182427 51 g-index
122 all docs	122 docs citations	122 times ranked	939 citing authors

#	Article	IF	Citations
1	Numerical and theoretical investigations of the cavitation performance and instability for the cryogenic inducer. Renewable Energy, 2022, 184, 291-305.	8.9	14
2	Experimental investigation of unsteady attached cavitating flow induced pressure fluctuation. Journal of Hydrodynamics, 2022, 34, 31-42.	3.2	3
3	Numerical investigation of the round jet in crossflow at high velocity ratios with special emphasis on the evolution of vortex structures. Physics of Fluids, 2022, 34, .	4.0	3
4	Numerical analysis of interaction between turbulent structures and transient sheet/cloud cavitation. Physics of Fluids, 2022, 34, .	4.0	17
5	Collapsing behavior of a spark-induced cavitation bubble near the air bubble attached to the tube nozzle. Ocean Engineering, 2022, 253, 111183.	4.3	10
6	Numerical investigation of cavitation-vortex structures around a sphere with boundary data immersion method. Ocean Engineering, 2022, 255, 111333.	4.3	3
7	ç»•æŒ¯è¶Clark-Yæ°´ç¿¼ç©ºåŒ–è¿Ÿæ»žç‰¹æ€§ç”©ç©¶. Acta Mechanica Sinica/Lixue Xuebao, 2022, 38, .	3.4	5
8	Numerical investigation of cavitation-vortex interaction around the NACA66(mod) hydrofoil with emphasis on multistage shedding process. Ocean Engineering, 2022, 259, 111661.	4.3	15
9	Numerical Investigation of the Cavitation-Vortex Interaction Around a Twisted Hydrofoil with Emphasis on the Vortex Identification Method. , 2021, , 439-456.		0
10	Free vibration analysis of composite foils with different ply angles based on beam theory. Ocean Engineering, 2021, 226, 108854.	4.3	7
11	Numerical studies of the hydrodynamic damping of a vibrating hydrofoil in torsional mode. Journal of Hydrodynamics, 2021, 33, 347-360.	3.2	11
12	Physical investigation of acoustic waves induced by the oscillation and collapse of the single bubble. Ultrasonics Sonochemistry, 2021, 72, 105440.	8.2	17
13	Dynamic instability analysis of cavitating flow with liquid nitrogen in a convergingâ€“diverging nozzle. Applied Thermal Engineering, 2021, 192, 116870.	6.0	17
14	Numerical investigation of cavitation-vortex interaction with special emphasis on the multistage shedding process. Applied Mathematical Modelling, 2021, 96, 111-130.	4.2	42
15	Experimental investigation into fluidâ€“structure interaction of cavitating flow. Physics of Fluids, 2021, 33, .	4.0	19
16	Unsteady behavior of ventilated cavitating flows around an axisymmetric body. Ocean Engineering, 2021, 236, 109308.	4.3	6
17	Decomposition of unsteady sheet/cloud cavitation dynamics in fluid-structure interaction via POD and DMD methods. International Journal of Multiphase Flow, 2021, 142, 103690.	3.4	39
18	Experimental investigations on transient dynamics of cryogenic cavitating flows under different free-stream conditions. International Journal of Heat and Mass Transfer, 2021, 178, 121537.	4.8	8

#	Article	IF	Citations
19	Physical and numerical study on the transition of gas leakage regime of ventilated cavitating flow. Ocean Engineering, 2021, 239, 109861.	4.3	11
20	Numerical investigation of flow structures around the DARPA SUBOFF model. Ocean Engineering, 2021, 239, 109866.	4.3	15
21	The influence of micro vortex generator on inception cavitation. Physics of Fluids, 2021, 33, .	4.0	8
22	10.1063/5.0067266.4. , 2021, , .		0
23	10.1063/5.0067266.14. , 2021, , .		0
24	Experimental and numerical analysis of tip leakage cavitating flow around a 3D NACA66 (mod) hydrofoil. Ocean Engineering, 2021, 241, 110005.	4.3	13
25	Data-driven modal decomposition of transient cavitating flow. Physics of Fluids, 2021, 33, .	4.0	49
26	Study of unsteady cavitating flow around Clark-Y hydrofoil using nonlinear PANS model with near-wall correction. Modern Physics Letters B, 2021, 35, .	1.9	2
27	On study of non-spherical bubble collapse near a rigid boundary. Journal of Hydrodynamics, 2020, 32, 523-535.	3.2	16
28	The interaction between the transient cavitating flow and hydrodynamic performance around a pitching hydrofoil. Renewable Energy, 2020, 161, 1276-1291.	8.9	25
29	Dynamic behavior of a single bubble between the free surface and rigid wall. Ultrasonics Sonochemistry, 2020, 67, 105147.	8.2	43
30	Characteristics and dynamics of compressible cavitating flows with special emphasis on compressibility effects. International Journal of Multiphase Flow, 2020, 130, 103357.	3.4	30
31	Dynamics of unsteady compressible cavitating flows associated with the cavity shedding. Ocean Engineering, 2020, 209, 107025.	4.3	27
32	Numerical investigation of the cavitating flow structure with special emphasis on the vortex identification method. Modern Physics Letters B, 2020, 34, 2050058.	1.9	8
33	Numerical investigation of the water entry of a hydrophobic sphere with spin. International Journal of Multiphase Flow, 2020, 126, 103234.	3.4	20
34	The flow regime and hydrodynamic performance for a pitching hydrofoil. Renewable Energy, 2020, 150, 412-427.	8.9	28
35	Investigation of unsteady liquid nitrogen cavitating flows with special emphasis on the vortex structures using mode decomposition methods. International Journal of Heat and Mass Transfer, 2020, 157, 119880.	4.8	27
36	Physical and numerical study on unsteady shedding behaviors of ventilated partial cavitating flow around an axisymmetric body. Ocean Engineering, 2020, 197, 106884.	4.3	18

#	Article	IF	Citations
37	Hydrodynamic characteristics and flow structures of pitching hydrofoil with special emphasis on the added force effect. Renewable Energy, 2020, 157, 560-573.	8.9	6
38	Physical investigation of the counterjet dynamics during the bubble rebound. Ultrasonics Sonochemistry, 2019, 58, 104706.	8.2	22
39	Experimental study on water entry of spheres with different surface wettability. Ocean Engineering, 2019, 187, 106123.	4.3	37
40	Thermodynamic analysis of unsteady cavitation dynamics in liquid hydrogen. International Journal of Heat and Mass Transfer, 2019, 142, 118470.	4.8	18
41	Application of two-branch deep neural network to predict bubble migration near elastic boundaries. Physics of Fluids, 2019, 31, .	4.0	17
42	A review of transient flow structure and unsteady mechanism of cavitating flow. Journal of Hydrodynamics, 2019, 31, 429-444.	3.2	69
43	Cavitation vortex dynamics of unsteady sheet/cloud cavitating flows with shock wave using different vortex identification methods. Journal of Hydrodynamics, 2019, 31, 475-494.	3.2	35
44	Unsteady characteristics of liquid nitrogen cavitating flows in different thermal cavitation mode. Applied Thermal Engineering, 2019, 156, 63-76.	6.0	47
45	Experimental investigation of liquid nitrogen cavitating flows in converging-diverging nozzle with special emphasis on thermal transition. International Journal of Heat and Mass Transfer, 2019, 132, 618-630.	4.8	49
46	Comparisons of spark-charge bubble dynamics near the elastic and rigid boundaries. Ultrasonics Sonochemistry, 2018, 43, 80-90.	8.2	108
47	Numerical simulation of single bubble dynamics under acoustic travelling waves. Ultrasonics Sonochemistry, 2018, 42, 619-630.	8.2	46
48	Effects of air injection on the characteristics of unsteady sheet/cloud cavitation shedding in the convergent-divergent channel. International Journal of Multiphase Flow, 2018, 106, 1-20.	3.4	27
49	Numerical investigation of ventilated cavitating vortex shedding over a bluff body. Ocean Engineering, 2018, 159, 129-138.	4.3	16
50	Numerical modelling of unsteady cavitation and induced noise around a marine propeller. Ocean Engineering, 2018, 160, 143-155.	4.3	75
51	Numerical investigation of cavitation vortex dynamics in unsteady cavitating flow with shock wave propagation. Ocean Engineering, 2018, 156, 424-434.	4.3	42
52	Numerical and theoretical investigation of the high-speed compressible supercavitating flows. Ocean Engineering, 2018, 156, 446-455.	4.3	16
53	The transient characteristics of cloud cavitating flow over a flexible hydrofoil. International Journal of Multiphase Flow, 2018, 99, 162-173.	3.4	76
54	Experimental and numerical investigation of ventilated cavitating flow structures with special emphasis on vortex shedding dynamics. International Journal of Multiphase Flow, 2018, 98, 79-95.	3.4	76

#	Article	IF	Citations
55	Experimental investigation of ventilated partial cavitating flows with special emphasis on flow pattern regime and unsteady shedding behavior around an axisymmetric body at different angles of attack. Ocean Engineering, 2018, 147, 289-303.	4.3	27
56	Measurement and prediction of cavitating flow-induced vibrations. Journal of Hydrodynamics, 2018, 30, 1064-1071.	3.2	26
57	The influence of ventilated cavitation on vortex shedding behind a bluff body. Experimental Thermal and Fluid Science, 2018, 98, 181-194.	2.7	15
58	Numerical simulation of transient turbulent cavitating flows with special emphasis on shock wave dynamics considering the water/vapor compressibility. Journal of Hydrodynamics, 2018, 30, 573-591.	3.2	26
59	Lagrangian-based numerical investigation of aerodynamic performance of an oscillating foil. Acta Mechanica Sinica/Lixue Xuebao, 2018, 34, 839-854.	3.4	17
60	Thermal transition and its evaluation of liquid hydrogen cavitating flow in a wide range of free-stream conditions. International Journal of Heat and Mass Transfer, 2018, 127, 1277-1289.	4.8	27
61	Numerical simulation of single bubble dynamics under acoustic standing waves. Ultrasonics Sonochemistry, 2018, 49, 196-205.	8.2	17
62	Numerical investigation of the deformation characteristics of a composite hydrofoil with different ply angles. Ocean Engineering, 2018, 163, 348-357.	4.3	13
63	Combined experimental and theoretical investigation of the gas bubble motion in an acoustic field. Ultrasonics Sonochemistry, 2018, 40, 480-487.	8.2	39
64	Experimental investigation of conical bubble structure and acoustic flow structure in ultrasonic field. Ultrasonics Sonochemistry, 2017, 34, 164-172.	8.2	34
65	Combined experimental and computational investigation of the cavitating flow in an orifice plate with special emphasis on surrogate-based optimization method. Journal of Mechanical Science and Technology, 2017, 31, 269-279.	1.5	16
66	Numerical simulations and surrogate-based optimization of cavitation performance for an aviation fuel pump. Journal of Mechanical Science and Technology, 2017, 31, 705-716.	1.5	20
67	Numerical investigation of thermo-sensitive cavitating flows in a wide range of free-stream temperatures and velocities in fluoroketone. International Journal of Heat and Mass Transfer, 2017, 112, 125-136.	4.8	34
68	Experimental investigation of the flow pattern for ventilated partial cavitating flows with effect of Froude number and gas entrainment. Ocean Engineering, 2017, 129, 343-351.	4.3	49
69	Dynamics of cavitationâ€“structure interaction. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 685-708.	3.4	46
70	Unsteady pressure fluctuation characteristics in the process of breakup and shedding of sheet/cloud cavitation. International Journal of Heat and Mass Transfer, 2017, 114, 769-785.	4.8	71
71	Numerical simulation of the red blood cell aggregation and deformation behaviors in ultrasonic field. Ultrasonics Sonochemistry, 2017, 38, 604-613.	8.2	14
72	NUMERICAL INVESTIGATION OF THE DYNAMIC RESPONSES OF COMPOSITE MATERIAL SUBJECTED TO BUBBLE COLLAPSE. WIT Transactions on Engineering Sciences, 2017, , .	0.0	4

#	Article	IF	Citations
73	INVESTIGATION OF UNSTEADY SHEET/CLOUD CAVITATION IN THE DIVERGENT SECTION OF A NOZZLE WITH EMPHASIS ON THE MECHANISM OF SHOCK WAVE PROPAGATION. WIT Transactions on Engineering Sciences, 2017, , .	0.0	0
74	A curvature correction turbulent model for computations of cloud cavitating flows. Engineering Computations, 2016, 33, 202-216.	1.4	11
75	Numerical analysis of developed tip leakage cavitating flows using a new transport-based model. International Communications in Heat and Mass Transfer, 2016, 78, 39-47.	5.6	33
76	Numerical study of cavitating flows in a wide range of water temperatures with special emphasis on two typical cavitation dynamics. International Journal of Heat and Mass Transfer, 2016, 101, 886-900.	4.8	91
77	Numerical investigation on the influence of surface tension and viscous force on the bubble dynamics with a CLSVOF method. Journal of Mechanical Science and Technology, 2016, 30, 2547-2556.	1.5	22
78	Vortex structure analysis of unsteady cloud cavitating flows around a hydrofoil. Modern Physics Letters B, 2016, 30, 1550275.	1.9	1
79	Numerical investigation of transport mechanism in four-body problem using Lagrangian coherent structure. Astrophysics and Space Science, 2016, 361, 1.	1.4	4
80	Lagrangian investigations of vortex dynamics in time-dependent cloud cavitating flows. International Journal of Heat and Mass Transfer, 2016, 93, 167-174.	4.8	20
81	Lagrangian-based investigation of the transient flow structures around a pitching hydrofoil. Acta Mechanica Sinica/Lixue Xuebao, 2016, 32, 64-74.	3.4	25
82	A cavitation model for computations of unsteady cavitating flows. Acta Mechanica Sinica/Lixue Xuebao, 2016, 32, 273-283.	3.4	23
83	Surrogate model-based optimization for the headform design of an axisymmetric body. Ocean Engineering, 2015, 107, 237-245.	4.3	9
84	Effects of fluid thermophysical properties on cavitating flows. Journal of Mechanical Science and Technology, 2015, 29, 4239-4246.	1.5	25
85	Numerical investigation of dynamics of unsteady sheet/cloud cavitating flow using a compressible fluid model. Modern Physics Letters B, 2015, 29, 1450269.	1.9	4
86	Numerical study of thermodynamic effects on liquid nitrogen cavitating flows. Cryogenics, 2015, 70, 21-27.	1.7	24
87	Experimental and numerical investigation of hydroelastic response of a flexible hydrofoil in cavitating flow. International Journal of Multiphase Flow, 2015, 74, 19-33.	3.4	108
88	Numerical study on the influence of interphase interaction in sheet/cloud cavitating flows around a 2D hydrofoil. Journal of Mechanical Science and Technology, 2015, 29, 1075-1083.	1.5	4
89	Three-dimensional unsteady cavitating flows around an axisymmetric body with a blunt headform. Journal of Mechanical Science and Technology, 2015, 29, 1093-1101.	1.5	16
90	Combined experimental and computational investigation of cavitation evolution and excited pressure fluctuation in a convergentâ€“divergent channel. International Journal of Multiphase Flow, 2015, 72, 133-140.	3.4	51

#	Article	IF	Citations
91	Experimental and numerical investigation of ventilated cavitating flow with special emphasis on gas leakage behavior and re-entrant jet dynamics. Ocean Engineering, 2015, 108, 191-201.	4.3	61
92	Numerical Simulation of Transient Flows around a 3D Pitching Hydrofoil. Advances in Mechanical Engineering, 2015, 7, 808034.	1.6	6
93	Large Eddy Simulation of turbulent vortex-cavitation interactions in transient sheet/cloud cavitating flows. Computers and Fluids, 2014, 92, 113-124.	2.5	222
94	Lagrangian coherent structures analysis of gas-liquid flow in a bubble column. Science China: Physics, Mechanics and Astronomy, 2014, 57, 1169-1177.	5.1	4
95	A modified PANS model for computations of unsteady turbulence cavitating flows. Science China: Physics, Mechanics and Astronomy, 2014, 57, 1967-1976.	5.1	20
96	Numerical simulation of unsteady cavitating flows around a transient pitching hydrofoil. Science China Technological Sciences, 2014, 57, 101-116.	4.0	16
97	Numerical simulation unsteady cloud cavitating flow with a filter-based density correction model. Journal of Hydrodynamics, 2014, 26, 26-36.	3.2	70
98	Numerical investigation of cavitating flow in liquid hydrogen. International Journal of Hydrogen Energy, 2014, 39, 1698-1709.	7.1	55
99	Physical and numerical investigation on transient cavitating flows. Science China Technological Sciences, 2013, 56, 2207-2218.	4.0	27
100	Combined Experimental and Computational Investigation of Unsteady Structure of Sheet/Cloud Cavitation. Journal of Fluids Engineering, Transactions of the ASME, 2013, 135, .	1.5	193
101	Physical and numerical investigation of cavitating flows around a pitching hydrofoil. Physics of Fluids, 2013, 25, .	4.0	90
102	Detached-eddy simulation for time-dependent turbulent cavitating flows. Chinese Journal of Mechanical Engineering (English Edition), 2012, 25, 484-490.	3.7	29
103	Evaluation of Cavitation Models for Prediction of Transient Cavitating Flows around a Stationary and a Pitching Hydrofoil. , 2012, , .		11
104	Evaluation of a Filter-Based Model for Computations of Cavitating Flows. Chinese Physics Letters, 2011, 28, 026401.	3.3	18
105	Experimental and numerical investigation of unsteady cavitating flows through a 2D hydrofoil. Science China Technological Sciences, 2011, 54, 1801-1812.	4.0	38
106	A modified density based cavitation model for time dependent turbulent cavitating flow computations. Science Bulletin, 2011, 56, 1985-1992.	1.7	17
107	Partially Averaged Navier-Stokes Method for Time-Dependent Turbulent Cavitating Flows. Journal of Hydrodynamics, 2011, 23, 26-33.	3.2	61
108	A cavitation model for cavtating flow simulations. Journal of Hydrodynamics, 2010, 22, 756-762.	3.2	8

#	Article	IF	Citations
109	k-ĵμ-BASED TURBULENCE MODELS FOR SIMULATION OF CLOUD CAVITATING FLOWS. Modern Physics Letters B, 2010, 24, 1357-1360.	1.9	6