Hui Xu

List of Publications by Year
in descending order

45 papers	1,365 citations	331670 21 h-index	330143 37 g-index
45 all docs	45 docs citations	45 times ranked	905 citing authors

#	Article	IF	Citations
1	Model Order Reduction Method Based on Machine Learning for Parameterized Time-Dependent Partial Differential Equations. Journal of Scientific Computing, 2022, 92, .	2.3	0
2	Implicit large-eddy simulations of turbulent flow in a channel via spectral/<i>hp</i> element methods. Physics of Fluids, 2021, 33, .	4.0	9
3	On the characteristics and mechanism of perturbation modes with asymptotic growth in trailing vortices. Journal of Fluid Mechanics, 2021, 918, .	3.4	6
4	Explore missing flow dynamics by physics-informed deep learning: The parameterized governing systems. Physics of Fluids, 2021, 33, .	4.0	33
5	Parameter optimization of open-loop control of a circular cylinder by simplified reinforcement learning. Physics of Fluids, 2021, 33, .	4.0	10
6	Pomegranateâ€like high density LTO anode material for lithiumâ€ion batteries. Micro and Nano Letters, 2021, 16, 39-43.	1.3	0
7	Dynamics and stability of the wake behind a circular cylinder in the vicinity of a plane moving wall. Ocean Engineering, 2021, 242, 110034.	4.3	3
8	Vortex structures evolution in supersonic mixing layers with different inlet Reynolds numbers based on the Lagrangian method. AIP Advances, 2021, 11, 125128.	1.3	0
9	Novel construction of nanostructured carbon materials as sulfur hosts for advanced lithiumâ€sulfur batteries. International Journal of Energy Research, 2020, 44, 70-91.	4.5	25
10	Nektar++: Enhancing the capability and application of high-fidelity spectral/<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e862" altimg="si5.svg"><mml:mrow><mml:mi>h</mml:mi><mml:mi>p</mml:mi></mml:mrow></mml:math> element methods. Computer Physics Communications, 2020, 249, 107110.	7.5	82
11	Turbulent wake suppression of circular cylinder flow by two small counter-rotating rods. Physics of Fluids, 2020, 32, .	4.0	16
12	Transition to chaos in the wake of a circular cylinder near a moving wall at low Reynolds numbers. Physics of Fluids, 2020, 32, 091703.	4.0	6
13	Active flow control with rotating cylinders by an artificial neural network trained by deep reinforcement learning. Journal of Hydrodynamics, 2020, 32, 254-258.	3.2	43
14	Deep reinforcement learning in fluid mechanics: A promising method for both active flow control and shape optimization. Journal of Hydrodynamics, 2020, 32, 234-246.	3.2	64
15	The bypass transition mechanism of the Stokes boundary layer in the intermittently turbulent regime. Journal of Fluid Mechanics, 2020, 896, .	3.4	8
16	Numerical simulation of condensation shock in partial cavitating flow on a hydrofoil. Journal of Hydrodynamics, 2020, 32, 183-187.	3.2	2
17	Lagrangian analysis of the fluid transport induced by the interaction of two co-axial co-rotating vortex rings. Journal of Hydrodynamics, 2020, 32, 1080-1090.	3.2	3
18	Flow instabilities in the wake of a circular cylinder with parallel dual splitter platesÂattached. Journal of Fluid Mechanics, 2019, 874, 299-338.	3.4	28

#	Article	IF	Citations
19	Modification of three-dimensional instability in the planar shear flow around two circular cylinders in tandem. Physics of Fluids, 2019, 31, .	4.0	12
20	Hidden flow structures in compressible mixing layer and a quantitative analysis of entrainment based on Lagrangian method. Journal of Hydrodynamics, 2019, 31, 256-265.	3.2	14
21	Spectral/hp element methods: Recent developments, applications, and perspectives. Journal of Hydrodynamics, 2018, 30, 1-22.	3.2	74
22	Destabilisation and modification of Tollmienâ€“Schlichting disturbances by a three-dimensional surface indentation. Journal of Fluid Mechanics, 2017, 819, 592-620.	3.4	30
23	Influence of localised smooth steps on the instability of a boundary layer. Journal of Fluid Mechanics, 2017, 817, 138-170.	3.4	22
24	A second-order decoupled implicit/explicit method of the 3D primitive equations of ocean II: finite element spatial discretization. International Journal for Numerical Methods in Engineering, 2016, 108, 750-789.	2.8	5
25	The behaviour of Tollmienâ€“Schlichting waves undergoing small-scale localised distortions. Journal of Fluid Mechanics, 2016, 792, 499-525.	3.4	27
26	First-Order Decoupled Finite Element Method of the three-Dimensional Primitive Equations of the Ocean. SIAM Journal of Scientific Computing, 2016, 38, A273-A301.	2.8	10
27	Nektar++: An open-source spectral/<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si20.gif" display="inline" overflow="scroll"><mml:mi>h</mml:mi><mml:mi>p</mml:mi></mml:math> element framework. Computer Physics Communications, 2015, 192, 205-219.	7.5	399
28	On two-level Oseen iterative methods for the 2D/3D steady Navierâ€“Stokes equations. Computers and Fluids, 2015, 107, 89-99.	2.5	5
29	Two-Level Newtonâ€™s Method for Nonlinear Elliptic PDEs. Journal of Scientific Computing, 2013, 57, 124-145.	2.3	11
30	Analysis of the absorbing layers for the weakly-compressible lattice Boltzmann methods. Journal of Computational Physics, 2013, 245, 14-42.	3.8	35
31	Some iterative finite element methods for steady Navierâ€“Stokes equations with different viscosities. Journal of Computational Physics, 2013, 232, 136-152.	3.8	51
32	Coupling of finite volume method and thermal lattice Boltzmann method and its application to natural convection. International Journal for Numerical Methods in Fluids, 2012, 70, 200-221.	1.6	18
33	Sensitivity analysis and determination of free relaxation parameters for the weakly-compressible MRTâ€“LBM schemes. Journal of Computational Physics, 2012, 231, 7335-7367.	3.8	28
34	Twoâ€level Newton iterative method for the 2D/3D steady Navierâ€Stokes equations. Numerical Methods for Partial Differential Equations, 2012, 28, 1620-1642.	3.6	37
35	A lifting relation from macroscopic variables to mesoscopic variables in lattice Boltzmann method: Derivation, numerical assessments and coupling computations validation. Computers and Fluids, 2012, 54, 92-104.	2.5	23
36	Evaluation of the coupling scheme of FVM and LBM for fluid flows around complex geometries. International Journal of Heat and Mass Transfer, 2011, 54, 1975-1985.	4.8	51

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37	Optimal low-dispersion low-dissipation LBM schemes for computational aeroacoustics. Journal of Computational Physics, 2011, 230, 5353-5382.	3.8	60
38	Numerical Illustrations of the Coupling Between the Lattice Boltzmann Method and Finite-Type Macro-Numerical Methods. Numerical Heat Transfer, Part B: Fundamentals, 2010, 57, 147-171.	0.9	34
39	Entropic Lattice Boltzmann Method for high Reynolds number fluid flows. Progress in Computational Fluid Dynamics, 2009, 9, 183.	0.2	0
40	Lattice Boltzmann model for three-dimensional decaying homogeneous isotropic turbulence. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 1368-1373.	2.1	11
41	Revisiting two-dimensional turbulence by Lattice Boltzmann Method. Progress in Computational Fluid Dynamics, 2009, 9, 133.	0.2	6
42	Load forecast calibration method for large-scale electricity-dependent Corporation. , 2008, , .		0
43	Periodic Motions, Bifurcation, and Hysteresis of the Vibro-Impact System#. Mechanics Based Design of Structures and Machines, 2007, 35, 179-203.	4.7	6
44	A multi-level stabilized finite element method for the stationary Navierâ€"Stokes equations. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 2852-2862.	6.6	30
45	Frequency Analysis of a Rotating Cantilever Beam Using Assumed Mode Method with Coupling Effect#. Mechanics Based Design of Structures and Machines, 2006, 34, 25-47.	4.7	28