

# Yong Zhao

## List of Publications by Year in descending order

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citing authors

#	ARTICLE	IF	CITATIONS
1	A High-Resolution Characteristics-Based Implicit Dual Time-Stepping VOF Method for Free Surface Flow Simulation on Unstructured Grids. <i>Journal of Computational Physics</i> , 2002, 183, 233-273.	1.9	76
2	A high-order characteristics upwind FV method for incompressible flow and heat transfer simulation on unstructured grids. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000, 190, 733-756.	3.4	57
3	A novel coupled level set and volume of fluid method for sharp interface capturing on 3D tetrahedral grids. <i>Journal of Computational Physics</i> , 2010, 229, 2573-2604.	1.9	56
4	Parallel unsteady incompressible viscous flow computations using an unstructured multigrid method. <i>Journal of Computational Physics</i> , 2003, 192, 277-311.	1.9	41
5	Parallel-multigrid computation of unsteady incompressible viscous flows using a matrix-free implicit method and high-resolution characteristics-based scheme. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2005, 194, 3949-3983.	3.4	36
6	A general method for simulation of fluid flows with moving and compliant boundaries on unstructured grids. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2003, 192, 4439-4466.	3.4	35
7	Parallel computation of unsteady incompressible viscous flows around moving rigid bodies using an immersed object method with overlapping grids. <i>Journal of Computational Physics</i> , 2005, 207, 151-172.	1.9	32
8	Numerical simulation of 3D fluid-structure interaction flow using an immersed object method with overlapping grids. <i>Computers and Structures</i> , 2007, 85, 749-762.	2.4	32
9	Dragonfly ( <i>Sympetrum flaveolum</i> ) flight: Kinematic measurement and modelling. <i>Journal of Fluids and Structures</i> , 2013, 40, 115-126.	1.5	31
10	An efficient parallel/unstructured-multigrid preconditioned implicit method for simulating 3D unsteady compressible flows with moving objects. <i>Journal of Computational Physics</i> , 2006, 215, 661-690.	1.9	27
11	Higher-Order Characteristics-Based Method for Incompressible Flow Computation on Unstructured Grids. <i>AIAA Journal</i> , 2001, 39, 1280-1287.	1.5	26
12	Parallel computation of unsteady three-dimensional incompressible viscous flow using an unstructured multigrid method. <i>Computers and Structures</i> , 2004, 82, 2425-2436.	2.4	25
13	Numerical study of steady/unsteady flow and heat transfer in porous media using a characteristics-based matrix-free implicit FV method on unstructured grids. <i>International Journal of Heat and Fluid Flow</i> , 2004, 25, 1015-1033.	1.1	25
14	Stiffness evaluation of the leading edge of the dragonfly wing via laser vibrometer. <i>Materials Letters</i> , 2013, 97, 166-168.	1.3	22
15	Numerical simulation of opening process in a bileaflet mechanical heart valve under pulsatile flow condition. <i>Journal of Heart Valve Disease</i> , 2003, 12, 245-55.	0.5	21
16	A matrix-free implicit unstructured multigrid finite volume method for simulating structural dynamics and fluid-structure interaction. <i>Journal of Computational Physics</i> , 2007, 225, 120-144.	1.9	20
17	A sand production prediction model for weak sandstone reservoir in Kazakhstan. <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , 2019, 11, 760-769.	3.7	19
18	A numerical method for simulation of forced convection in a composite porous/fluid system. <i>International Journal of Heat and Fluid Flow</i> , 2000, 21, 432-441.	1.1	18

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19	A 3D implicit unstructured-grid finite volume method for structural dynamics. Computational Mechanics, 2007, 40, 299-312.	2.2	16
20	Aircraft Tire Temperature at Touchdown with Wheel Prerotation. Journal of Aircraft, 2017, 54, 926-938.	1.7	16
21	Comparative Analysis of Turbulence Models for Automotive Aerodynamic Simulation and Design. International Journal of Automotive Technology, 2019, 20, 1145-1152.	0.7	15
22	Stable computation of turbulent flows with a low-Reynolds-number $k\text{-}\mu$ turbulence model and explicit solver. Advances in Engineering Software, 1997, 28, 487-499.	1.8	13
23	On the characteristics-based ACM for incompressible flows. Journal of Computational Physics, 2007, 227, 1-11.	1.9	13
24	An unstructured mesh arbitrary Lagrangian-Eulerian unsteady incompressible flow solver and its application to insect flight aerodynamics. Physics of Fluids, 2016, 28, .	1.6	12
25	Numerical investigations on aerodynamic forces of deformable foils in hovering motions. Physics of Fluids, 2017, 29, .	1.6	12
26	Simulation of micro flows with moving boundaries using high-order upwind FV method on unstructured grids. Computational Mechanics, 2002, 28, 66-75.	2.2	11
27	Parallel unstructured multigrid simulation of 3D unsteady flows and fluid-structure interaction in mechanical heart valve using immersed membrane method. Computers and Fluids, 2009, 38, 71-79.	1.3	11
28	Coupled CFD-DEM numerical modelling of perforation damage and sand production in weak sandstone formation. Geomechanics for Energy and the Environment, 2021, 28, 100255.	1.2	11
29	Numerical Simulation of a Systemic Flow Test Rig. ASAIJ Journal, 2004, 50, 54-64.	0.9	10
30	Particle Image Velocimetry Study of Pulsatile Flow in Bi-leaflet Mechanical Heart Valves with Image Compensation Method. Journal of Biological Physics, 2007, 32, 531-551.	0.7	10
31	Computation of complex turbulent flow using matrix-free implicit dual time-stepping scheme and LRN turbulence model on unstructured grids. Computers and Fluids, 2004, 33, 119-136.	1.3	9
32	A finite volume unstructured multigrid method for efficient computation of unsteady incompressible viscous flows. International Journal for Numerical Methods in Fluids, 2004, 46, 59-84.	0.9	7
33	A Preconditioned Implicit Free-Surface Capture Scheme for Large Density Ratio on Tetrahedral Grids. Communications in Computational Physics, 2012, 11, 215-248.	0.7	7
34	NUMERICAL SIMULATION OF 3D FLUID-STRUCTURE INTERACTION USING AN IMMERSED MEMBRANE METHOD. Modern Physics Letters B, 2005, 19, 1447-1450.	1.0	6
35	3D Multidisciplinary Automated Design Optimization Toolbox for Wind Turbine Blades. Processes, 2021, 9, 581.	1.3	6
36	Numerical investigation of sand production mechanisms in weak sandstone formations with various reservoir fluids. International Journal of Rock Mechanics and Minings Sciences, 2022, 154, 105096.	2.6	6

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37	Numerical scheme for solving the Richard's equation based on finite volume model with unstructured mesh and implicit dual-time stepping. Computers and Geotechnics, 2022, 147, 104768.	2.3	6
38	An efficient parallel computation of unsteady incompressible viscous flow with elastic moving and compliant boundaries on unstructured grids. International Journal for Numerical Methods in Engineering, 2005, 64, 2072-2104.	1.5	5
39	Numerical simulations of fluid flow and convection heat transfer through fluid/porous layers. , 1999, , .		4
40	Computation of shock/boundary-layer interactions in bump channels with transport-type turbulence models. Computer Methods in Applied Mechanics and Engineering, 1999, 173, 55-69.	3.4	4
41	Simulations of flow through fluid/porous layers by a characteristic-based method on unstructured grids. International Journal for Numerical Methods in Engineering, 2001, 50, 2443-2457.	1.5	3
42	Title is missing!. Journal of Scientific Computing, 2001, 16, 553-568.	1.1	3
43	Numerical and Experimental Investigations on the Hydrodynamic Performance of a Tidal Current Turbine. Journal of Offshore Mechanics and Arctic Engineering, 2018, 140, , .	0.6	3
44	Computation of internal high-speed separated flow with modified B-L and J-K models. International Journal for Numerical Methods in Fluids, 1998, 28, 1053-1071.	0.9	2
45	Inverse thermal modeling and experimental validation for breast tumor detection by using highly personalized surface thermal patterns and geometry of the breast. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2020, , 095440622097059.	1.1	2
46	Investigation of High Lift Force Generation of Dragonfly Wing by a Novel Advanced Mode in Hover. Fluids, 2020, 5, 59.	0.8	2
47	Patient-specific CFD simulation of aerodynamics for nasal pathology: a combined computational and experimental study. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2021, 9, 470-479.	1.3	2
48	An URANS Simulation of the Kelvin-Helmholtz Aerodynamic Effect over the Ahmed Body. International Journal of Automotive Science and Technology, 0, , 166-171.	0.5	2
49	Role of plastic zone porosity and permeability in sand production in weak sandstone reservoirs. Underground Space (China), 2022, 7, 1003-1020.	3.4	2
50	High-Fidelity 2-Way FSI Simulation of a Wind Turbine Using Fully Structured Multiblock Meshes in OpenFoam for Accurate Aero-Elastic Analysis. Fluids, 2022, 7, 169.	0.8	2
51	Patient/Breast-Specific Detection of Breast Tumor Based on Patients's™ Thermograms, 3D Breast Scans, and Reverse Thermal Modelling. Applied Sciences (Switzerland), 2021, 11, 6565.	1.3	1
52	Parallel computation of unsteady three-dimensional incompressible viscous flow using an unstructured multigrid method. , 2003, , 1148-1152.		1
53	Parallel Computation of Unsteady Incompressible Viscous Flows Using an Unstructured Multigrid Method. , 2002, , .		1
54	An Arbitrary Hybrid Turbulence Modeling Approach for Efficient and Accurate Automotive Aerodynamic Analysis and Design Optimization. Fluids, 2021, 6, 407.	0.8	1

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55	A novel dynamic adaptive unstructured mesh algorithm for simulating multi-object relative motion in incompressible fluid. International Journal for Numerical Methods in Fluids, 2022, 94, 1583-1610.	0.9	1
56	Multigrid Computation of Flow Past Airfoil Using $k-\mu$ Turbulence Model. Journal of Aerospace Engineering, 1995, 8, 180-188.	0.8	0
57	ADAPTIVE IMMersed OBJECT METHOD FOR MOVING OBJECTS IN FLOW FIELDS. , 2009, , .		0
58	2D Unstructured Mesh Finite Volume Method for Simulating Structural Dynamics. Applied Mechanics and Materials, 0, 376, 345-348.	0.2	0
59	The Multigrid Method. , 2019, , 63-86.		0
60	IOM FSI Model Validations and Applications. , 2019, , 145-272.		0
61	ALE FSI Model Validations and Applications. , 2019, , 409-480.		0
62	Mathematical Formulation for Incompressible Flow Solver. , 2019, , 33-51.		0
63	Mathematical Formulation for Computational Structural Dynamics. , 2019, , 53-62.		0
64	Parallel Computation. , 2019, , 87-99.		0
65	The Immersed Object Method With Overlapping Grids. , 2019, , 101-108.		0
66	Arbitrary Lagrangian-Eulerian (ALE) Method and Fluid-Structure Interaction. , 2019, , 127-144.		0
67	IMM FSI Model Validations and Applications for Incompressible Flows. , 2019, , 273-354.		0
68	IMM FSI Model Validations and Applications for Compressible Flows. , 2019, , 355-408.		0
69	3D NUMERICAL STUDY OF TEMPERATURE PATTERNS IN A FEMALE BREAST WITH TUMOR USING A REALISTIC MULTI-LAYERED MODEL. The Bulletin, 2021, 389, 6-13.	0.0	0
70	Kinematics of Dragonfly ( <i>Sympetrum flaveolum</i> ) Flight. IFMBE Proceedings, 2010, , 56-59.	0.2	0
71	Parallel Unsteady 3D MG Incompressible Flow. , 2005, , 443-450.		0
72	Arbitrary Hybrid Turbulence Modeling Approach for High-Fidelity NREL Phase VI Wind Turbine CFD Simulation. Fluids, 2022, 7, 236.	0.8	0