# Suchuan Dong

## List of Publications by Year
in descending order

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|---|---|---|---|
| 53<br>papers | 2,228<br>citations | 218677<br>26<br>h-index | 214800<br>47<br>g-index |
| 53<br>all docs | 53<br>docs citations | 53<br>times ranked | 1585<br>citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | On computing the hyperparameter of extreme learning machines: Algorithm and application to computational PDEs, and comparison with classical and high-order finite elements. Journal of Computational Physics, 2022, 463, 111290. | 3.8 | 15 |
| 2 | A method for representing periodic functions and enforcing exactly periodic boundary conditions with deep neural networks. Journal of Computational Physics, 2021, 435, 110242. | 3.8 | 40 |
| 3 | A modified batch intrinsic plasticity method for pre-training the random coefficients of extreme learning machines. Journal of Computational Physics, 2021, 445, 110585. | 3.8 | 12 |
| 4 | Local extreme learning machines and domain decomposition for solving linear and nonlinear partial differential equations. Computer Methods in Applied Mechanics and Engineering, 2021, 387, 114129. | 6.6 | 50 |
| 5 | Marangoni convection-driven laser fountains on free surfaces of liquids. Materials Today Physics, 2021, 21, 100558. | 6.0 | 6 |
| 6 | Molding, patterning and driving liquids with light. Materials Today, 2021, 51, 48-55. | 14.2 | 10 |
| 7 | A roadmap for discretely energy-stable schemes for dissipative systems based on a generalized auxiliary variable with guaranteed positivity. Journal of Computational Physics, 2020, 404, 109121. | 3.8 | 42 |
| 8 | gPAV-based unconditionally energy-stable schemes for the Cahn–Hilliard equation: Stability and error analysis. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113444. | 6.6 | 13 |
| 9 | An energy-stable scheme for incompressible Navier-Stokes equations with periodically updated coefficient matrix. Journal of Computational Physics, 2020, 418, 109624. | 3.8 | 3 |
| 10 | On a simple and effective thermal open boundary condition for convective heat transfer problems. International Journal of Heat and Mass Transfer, 2020, 151, 119355. | 4.8 | 12 |
| 11 | A gPAV-based unconditionally energy-stable scheme for incompressible flows with outflow/open boundaries. Computer Methods in Applied Mechanics and Engineering, 2020, 365, 112969. | 6.6 | 12 |
| 12 | A stabilized phase-field method for two-phase flow at high Reynolds number and large density/viscosity ratio. Journal of Computational Physics, 2019, 397, 108832. | 3.8 | 11 |
| 13 | A family of second-order energy-stable schemes for Cahn–Hilliard type equations. Journal of Computational Physics, 2019, 383, 24-54. | 3.8 | 35 |
| 14 | An unconditionally energy-stable scheme based on an implicit auxiliary energy variable for incompressible two-phase flows with different densities involving only precomputable coefficient matrices. Journal of Computational Physics, 2019, 393, 229-257. | 3.8 | 36 |
| 15 | Energy-stable boundary conditions based on a quadratic form: Applications to outflow/open-boundary problems in incompressible flows. Journal of Computational Physics, 2019, 391, 179-215. | 3.8 | 8 |
| 16 | Gold-implanted plasmonic quartz plate as a launch pad for laser-driven photoacoustic microfluidic pumps. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6580-6585. | 7.1 | 27 |
| 17 | Numerical approximation of incompressible Navier-Stokes equations based on an auxiliary energy variable. Journal of Computational Physics, 2019, 388, 1-22. | 3.8 | 79 |
| 18 | Multiphase flows of N immiscible incompressible fluids: An outflow/open boundary condition and algorithm. Journal of Computational Physics, 2018, 366, 33-70. | 3.8 | 11 |

| # | ARTICLE | IF | CITATIONS |
|---|---------|-----|-----------|
| 19 | A simple and efficient incompressible Navier–Stokes solver for unsteady complex geometry flows on truncated domains. Computers and Fluids, 2017, 150, 84-94. | 2.5 | 21 |
| 20 | Laser streaming: Turning a laser beam into a flow of liquid. Science Advances, 2017, 3, e1700555. | 10.3 | 45 |
| 21 | A robust and accurate outflow boundary condition for incompressible flow simulations on severely-truncated unbounded domains. Journal of Computational Physics, 2014, 261, 83-105. | 3.8 | 139 |
| 22 | An outflow boundary condition and algorithm for incompressible two-phase flows with phase field approach. Journal of Computational Physics, 2014, 266, 47-73. | 3.8 | 32 |
| 23 | An efficient algorithm for incompressible N-phase flows. Journal of Computational Physics, 2014, 276, 691-728. | 3.8 | 46 |
| 24 | A time-stepping scheme involving constant coefficient matrices for phase-field simulations of two-phase incompressible flows with large density ratios. Journal of Computational Physics, 2012, 231, 5788-5804. | 3.8 | 135 |
| 25 | Direct numerical simulation of spiral turbulence. Journal of Fluid Mechanics, 2011, 668, 150-173. | 3.4 | 24 |
| 26 | An eigen-based high-order expansion basis for structured spectral elements. Journal of Computational Physics, 2011, 230, 8573-8602. | 3.8 | 36 |
| 27 | BDF-like methods for nonlinear dynamic analysis. Journal of Computational Physics, 2010, 229, 3019-3045. | 3.8 | 57 |
| 28 | An unconditionally stable rotational velocity-correction scheme for incompressible flows. Journal of Computational Physics, 2010, 229, 7013-7029. | 3.8 | 27 |
| 29 | Modulation of homogeneous turbulence seeded with finite size bubbles or particles. International Journal of Multiphase Flow, 2010, 36, 221-233. | 3.4 | 63 |
| 30 | A Numerical Study of Spiral Turbulence. , 2010, , . | | 0 |
| 31 | A parallel spectral element method for dynamic three-dimensional nonlinear elasticity problems. Computers and Structures, 2009, 87, 59-72. | 4.4 | 34 |
| 32 | Simulation of Spiral Turbulence. , 2009, , . | | 1 |
| 33 | Elimination of Vortex Streets in Bluff-Body Flows. Physical Review Letters, 2008, 100, 204501. | 7.8 | 116 |
| 34 | Turbulent flow between counter-rotating concentric cylinders: a direct numerical simulation study. Journal of Fluid Mechanics, 2008, 615, 371-399. | 3.4 | 49 |
| 35 | Resonant Vibrations of Bluff Bodies Cause Multivortex Shedding and High Frequency Forces. Physical Review Letters, 2007, 99, 144503. | 7.8 | 123 |
| 36 | Runtime Visualization of the Human Arterial Tree. IEEE Transactions on Visualization and Computer Graphics, 2007, 13, 810-821. | 4.4 | 6 |

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|---|---------|-----|-----------|
| 37 | Direct numerical simulation of turbulent Taylor–Couette flow. Journal of Fluid Mechanics, 2007, 587, 373-393. | 3.4 | 147 |
| 38 | Turbulent drag reduction by constant near-wall forcing. Journal of Fluid Mechanics, 2007, 582, 79-101. | 3.4 | 32 |
| 39 | NEKTAR, SPICE and Vortonics: using federated grids for large scale scientific applications. Cluster Computing, 2007, 10, 351-364. | 5.0 | 22 |
| 40 | Simulating and visualizing the human arterial system on the TeraGrid. Future Generation Computer Systems, 2006, 22, 1011-1017. | 7.5 | 15 |
| 41 | A combined direct numerical simulation–particle image velocimetry study of the turbulent near wake. Journal of Fluid Mechanics, 2006, 569, 185. | 3.4 | 268 |
| 42 | New Advances in Force-Coupling Method: From Micro to Macro. , 2006, , 237-246. |  | 1 |
| 43 | Poster reception---Human arterial tree simulation on TeraGrid. , 2006, , . |  | 0 |
| 44 | DNS of flow past a stationary and oscillating cylinder at. Journal of Fluids and Structures, 2005, 20, 519-531. | 3.4 | 174 |
| 45 | Strong and Auxiliary Forms of the Semi-Lagrangian Method for Incompressible Flows. Journal of Scientific Computing, 2005, 25, 323-346. | 2.3 | 22 |
| 46 | Cross-Site Computations on the TeraGrid. Computing in Science and Engineering, 2005, 7, 14-23. | 1.2 | 23 |
| 47 | Multilevel Parallelization Models in CFD. Journal of Aerospace Computing, Information, and Communication, 2004, 1, 256-268. | 0.8 | 5 |
| 48 | Spectral distributed Lagrange multiplier method: algorithm and benchmark tests. Journal of Computational Physics, 2004, 195, 695-717. | 3.8 | 32 |
| 49 | Dual-level parallelism for high-order CFD methods. Parallel Computing, 2004, 30, 1-20. | 2.1 | 37 |
| 50 | Flow past a trapezoidal tab. Journal of Fluid Mechanics, 2004, 510, 219-242. | 3.4 | 54 |
| 51 | P-refinement and P-threads. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 2191-2201. | 6.6 | 10 |
| 52 | APPLICATION OF A FRACTIONAL-STEP SCHEME AND FINITE-VOLUME METHOD FOR SIMULATING FLOW PAST A SURFACE-MOUNTED MIXING TAB. Numerical Heat Transfer; Part A: Applications, 2002, 41, 469-490. | 2.1 | 3 |
| 53 | Chebyshev spectral method and Chebyshev noise processing procedure for vorticity calculation in PIV post-processing. Experimental Thermal and Fluid Science, 2001, 24, 47-59. | 2.7 | 7 |