

George E Karniadakis

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432
papers

26,111
citations

83
h-index

145
g-index

458
ext. papers

32,882
ext. citations

4.2
avg, IF

7.97
L-index

#	Paper	IF	Citations
432	The Wiener--Askey Polynomial Chaos for Stochastic Differential Equations. <i>SIAM Journal of Scientific Computing</i> , 2002 , 24, 619-644	2.6	2760
431	Modeling uncertainty in flow simulations via generalized polynomial chaos. <i>Journal of Computational Physics</i> , 2003 , 187, 137-167	4.1	960
430	High-order splitting methods for the incompressible Navier-Stokes equations. <i>Journal of Computational Physics</i> , 1991 , 97, 414-443	4.1	941
429	An adaptive multi-element generalized polynomial chaos method for stochastic differential equations. <i>Journal of Computational Physics</i> , 2005 , 209, 617-642	4.1	407
428	Spectral/hp Element Methods for Computational Fluid Dynamics 2005 ,		395
427	A multiscale red blood cell model with accurate mechanics, rheology, and dynamics. <i>Biophysical Journal</i> , 2010 , 98, 2215-25	2.9	382
426	Hidden physics models: Machine learning of nonlinear partial differential equations. <i>Journal of Computational Physics</i> , 2018 , 357, 125-141	4.1	380
425	Modeling uncertainty in steady state diffusion problems via generalized polynomial chaos. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2002 , 191, 4927-4948	5.7	376
424	Low-dimensional models for complex geometry flows: Application to grooved channels and circular cylinders. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991 , 3, 2337-2354		349
423	Multi-Element Generalized Polynomial Chaos for Arbitrary Probability Measures. <i>SIAM Journal of Scientific Computing</i> , 2006 , 28, 901-928	2.6	315
422	Hidden fluid mechanics: Learning velocity and pressure fields from flow visualizations. <i>Science</i> , 2020 , 367, 1026-1030	33.3	280
421	Three-dimensional dynamics and transition to turbulence in the wake of bluff objects. <i>Journal of Fluid Mechanics</i> , 1992 , 238, 1-30	3.7	264
420	Dynamics and low-dimensionality of a turbulent near wake. <i>Journal of Fluid Mechanics</i> , 2000 , 410, 29-65	3.7	258
419	Accurate coarse-grained modeling of red blood cells. <i>Physical Review Letters</i> , 2008 , 101, 118105	7.4	254
418	Physics-informed machine learning. <i>Nature Reviews Physics</i> ,	23.6	237
417	Predicting human blood viscosity in silico. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 11772-7	11.5	222
416	A low-dimensional model for simulating three-dimensional cylinder flow. <i>Journal of Fluid Mechanics</i> , 2002 , 458, 181-190	3.7	210

415	A combined direct numerical simulation-particle image velocimetry study of the turbulent near wake. <i>Journal of Fluid Mechanics</i> , 2006 , 569, 185	3.7	203
414	Stochastic Modeling of Flow-Structure Interactions Using Generalized Polynomial Chaos. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2002 , 124, 51-59	2.1	194
413	A direct numerical simulation study of flow past a freely vibrating cable. <i>Journal of Fluid Mechanics</i> , 1997 , 344, 95-136	3.7	193
412	Frequency selection and asymptotic states in laminar wakes. <i>Journal of Fluid Mechanics</i> , 1989 , 199, 441-469	3.7	193
411	Machine learning of linear differential equations using Gaussian processes. <i>Journal of Computational Physics</i> , 2017 , 348, 683-693	4.1	182
410	Systematic coarse-graining of spectrin-level red blood cell models. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010 , 199, 1937-1937	5.7	181
409	Simulation of heat and momentum transfer in complex microgeometries. <i>Journal of Thermophysics and Heat Transfer</i> , 1994 , 8, 647-655	1.3	173
408	Fractional Spectral Collocation Method. <i>SIAM Journal of Scientific Computing</i> , 2014 , 36, A40-A62	2.6	170
407	Blood flow and cell-free layer in microvessels. <i>Microcirculation</i> , 2010 , 17, 615-28	2.9	168
406	The multi-element probabilistic collocation method (ME-PCM): Error analysis and applications. <i>Journal of Computational Physics</i> , 2008 , 227, 9572-9595	4.1	168
405	A new stochastic approach to transient heat conduction modeling with uncertainty. <i>International Journal of Heat and Mass Transfer</i> , 2003 , 46, 4681-4693	4.9	166
404	Drag reduction in wall-bounded turbulence via a transverse travelling wave. <i>Journal of Fluid Mechanics</i> , 2002 , 457, 1-34	3.7	159
403	Fractional Sturm-Liouville eigen-problems: Theory and numerical approximation. <i>Journal of Computational Physics</i> , 2013 , 252, 495-517	4.1	156
402	Multi-element probabilistic collocation method in high dimensions. <i>Journal of Computational Physics</i> , 2010 , 229, 1536-1557	4.1	153
401	A new method to impose no-slip boundary conditions in dissipative particle dynamics. <i>Journal of Computational Physics</i> , 2005 , 207, 114-128	4.1	153
400	Suppressing wall turbulence by means of a transverse traveling wave. <i>Science</i> , 2000 , 288, 1230-4	33.3	148
399	Onset of three-dimensionality, equilibria, and early transition in flow over a backward-facing step. <i>Journal of Fluid Mechanics</i> , 1991 , 231, 501-528	3.7	148
398	Quantifying the biophysical characteristics of Plasmodium-falciparum-parasitized red blood cells in microcirculation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 35-9	11.5	143

397	Dynamics and flow structures in the turbulent wake of rigid and flexible cylinders subject to vortex-induced vibrations. <i>Journal of Fluid Mechanics</i> , 1999 , 400, 91-124	3.7	140
396	A Semi-Lagrangian High-Order Method for Navier-Stokes Equations. <i>Journal of Computational Physics</i> , 2001 , 172, 658-684	4.1	133
395	DeepXDE: A Deep Learning Library for Solving Differential Equations. <i>SIAM Review</i> , 2021 , 63, 208-228	7.4	132
394	A direct numerical simulation of laminar and turbulent flow over riblet-mounted surfaces. <i>Journal of Fluid Mechanics</i> , 1993 , 250, 1-42	3.7	130
393	Numerical simulation of turbulent drag reduction using micro-bubbles. <i>Journal of Fluid Mechanics</i> , 2002 , 468, 271-281	3.7	127
392	Integrating machine learning and multiscale modeling-perspectives, challenges, and opportunities in the biological, biomedical, and behavioral sciences. <i>Npj Digital Medicine</i> , 2019 , 2, 115	15.7	127
391	Fractional spectral collocation methods for linear and nonlinear variable order FPDEs. <i>Journal of Computational Physics</i> , 2015 , 293, 312-338	4.1	126
390	Physics-informed neural networks for high-speed flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020 , 360, 112789	5.7	126
389	Biomechanics of red blood cells in human spleen and consequences for physiology and disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 7804-9	11.5	124
388	Second-order approximations for variable order fractional derivatives: Algorithms and applications. <i>Journal of Computational Physics</i> , 2015 , 293, 184-200	4.1	123
387	Lipid bilayer and cytoskeletal interactions in a red blood cell. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 13356-61	11.5	123
386	Deep learning of vortex-induced vibrations. <i>Journal of Fluid Mechanics</i> , 2019 , 861, 119-137	3.7	123
385	Inferring solutions of differential equations using noisy multi-fidelity data. <i>Journal of Computational Physics</i> , 2017 , 335, 736-746	4.1	122
384	Exponentially accurate spectral and spectral element methods for fractional ODEs. <i>Journal of Computational Physics</i> , 2014 , 257, 460-480	4.1	122
383	Blood flow velocity effects and role of activation delay time on growth and form of platelet thrombi. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 17164-9	11.5	116
382	Unstructured Spectral Element Methods for Simulation of Turbulent Flows. <i>Journal of Computational Physics</i> , 1995 , 122, 191-217	4.1	116
381	De-aliasing on non-uniform grids: algorithms and applications. <i>Journal of Computational Physics</i> , 2003 , 191, 249-264	4.1	111
380	Minimum-dissipation transport enhancement by flow destabilization: Reynolds analogy revisited. <i>Journal of Fluid Mechanics</i> , 1988 , 192, 365-391	3.7	111

379	FPINNs: Fractional Physics-Informed Neural Networks. <i>SIAM Journal of Scientific Computing</i> , 2019 , 41, A2603-A2626	2.6	110
378	Many-body dissipative particle dynamics simulation of liquid/vapor and liquid/solid interactions. <i>Journal of Chemical Physics</i> , 2011 , 134, 204114	3.9	110
377	Long-term behavior of polynomial chaos in stochastic flow simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 5582-5596	5.7	109
376	Gappy data and reconstruction procedures for flow past a cylinder. <i>Journal of Fluid Mechanics</i> , 2004 , 519, 315-336	3.7	107
375	Continuum- and particle-based modeling of shapes and dynamics of red blood cells in health and disease. <i>Soft Matter</i> , 2013 , 9, 28-37	3.6	106
374	A new triangular and tetrahedral basis for high-order (hp) finite element methods. <i>International Journal for Numerical Methods in Engineering</i> , 1995 , 38, 3775-3802	2.4	105
373	Outflow boundary conditions for arterial networks with multiple outlets. <i>Annals of Biomedical Engineering</i> , 2008 , 36, 1496-514	4.7	104
372	Vortex-induced vibrations of a long flexible cylinder in shear flow. <i>Journal of Fluid Mechanics</i> , 2011 , 677, 342-382	3.7	103
371	Time-dependent generalized polynomial chaos. <i>Journal of Computational Physics</i> , 2010 , 229, 8333-8363	4.1	102
370	Unsteadiness and convective instabilities in two-dimensional flow over a backward-facing step. <i>Journal of Fluid Mechanics</i> , 1996 , 321, 157-187	3.7	101
369	A deep convolutional neural network for classification of red blood cells in sickle cell anemia. <i>PLoS Computational Biology</i> , 2017 , 13, e1005746	5	98
368	Adaptive activation functions accelerate convergence in deep and physics-informed neural networks. <i>Journal of Computational Physics</i> , 2020 , 404, 109136	4.1	97
367	Rheology, microstructure and migration in brownian colloidal suspensions. <i>Langmuir</i> , 2010 , 26, 133-42	4	94
366	Resonant vibrations of bluff bodies cause multivortex shedding and high frequency forces. <i>Physical Review Letters</i> , 2007 , 99, 144503	7.4	94
365	Adaptive ANOVA decomposition of stochastic incompressible and compressible flows. <i>Journal of Computational Physics</i> , 2012 , 231, 1587-1614	4.1	93
364	Controlling density fluctuations in wall-bounded dissipative particle dynamics systems. <i>Physical Review Letters</i> , 2006 , 96, 206001	7.4	92
363	A composite neural network that learns from multi-fidelity data: Application to function approximation and inverse PDE problems. <i>Journal of Computational Physics</i> , 2020 , 401, 109020	4.1	91
362	Numerical Gaussian Processes for Time-Dependent and Nonlinear Partial Differential Equations. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, A172-A198	2.6	90

361	Beyond Wiener-Askey Expansions: Handling Arbitrary PDFs. <i>Journal of Scientific Computing</i> , 2006 , 27, 455-464	2.3	90
360	What is the fractional Laplacian? A comparative review with new results. <i>Journal of Computational Physics</i> , 2020 , 404, 109009	4.1	90
359	Generalized polynomial chaos and random oscillators. <i>International Journal for Numerical Methods in Engineering</i> , 2004 , 60, 571-596	2.4	89
358	NSFnets (Navier-Stokes flow nets): Physics-informed neural networks for the incompressible Navier-Stokes equations. <i>Journal of Computational Physics</i> , 2021 , 426, 109951	4.1	89
357	Conservative physics-informed neural networks on discrete domains for conservation laws: Applications to forward and inverse problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020 , 365, 113028	5.7	88
356	Modeling blood flow circulation in intracranial arterial networks: a comparative 3D/1D simulation study. <i>Annals of Biomedical Engineering</i> , 2011 , 39, 297-309	4.7	87
355	Shape Transformations of Membrane Vesicles from Amphiphilic Triblock Copolymers: A Dissipative Particle Dynamics Simulation Study. <i>Macromolecules</i> , 2009 , 42, 3195-3200	5.5	87
354	111 years of Brownian motion. <i>Soft Matter</i> , 2016 , 12, 6331-46	3.6	87
353	Quantifying total uncertainty in physics-informed neural networks for solving forward and inverse stochastic problems. <i>Journal of Computational Physics</i> , 2019 , 397, 108850	4.1	85
352	Three-dimensionality effects in flow around two tandem cylinders. <i>Journal of Fluid Mechanics</i> , 2006 , 558, 387	3.7	85
351	Nodes, Modes and Flow Codes. <i>Physics Today</i> , 1993 , 46, 34-42	0.9	85
350	Multiscale modeling of red blood cell mechanics and blood flow in malaria. <i>PLoS Computational Biology</i> , 2011 , 7, e1002270	5	83
349	Nonlinear information fusion algorithms for data-efficient multi-fidelity modelling. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017 , 473, 20160751	2.4	82
348	Elimination of vortex streets in bluff-body flows. <i>Physical Review Letters</i> , 2008 , 100, 204501	7.4	82
347	Velocity limit in DPD simulations of wall-bounded flows. <i>Journal of Computational Physics</i> , 2008 , 227, 2540-2559	4.1	81
346	Dynamics of self-assembled chaining in magnetorheological fluids. <i>Langmuir</i> , 2004 , 20, 507-13	4	81
345	Learning nonlinear operators via DeepONet based on the universal approximation theorem of operators. <i>Nature Machine Intelligence</i> , 2021 , 3, 218-229	22.5	81
344	Triple-decker: Interfacing atomistic-mesosopic-continuum flow regimes. <i>Journal of Computational Physics</i> , 2009 , 228, 1157-1171	4.1	80

343	Equation-free/Galerkin-free POD-assisted computation of incompressible flows. <i>Journal of Computational Physics</i> , 2005 , 207, 568-587	4.1	80
342	Reweighted ℓ_1 minimization method for stochastic elliptic differential equations. <i>Journal of Computational Physics</i> , 2013 , 248, 87-108	4.1	79
341	Reynolds stress analysis of EMHD-controlled wall turbulence. Part I. Streamwise forcing. <i>Physics of Fluids</i> , 1997 , 9, 788-806	4.4	79
340	Numerical simulation of forced convection heat transfer from a cylinder in crossflow. <i>International Journal of Heat and Mass Transfer</i> , 1988 , 31, 107-118	4.9	79
339	Incorporation of memory effects in coarse-grained modeling via the Mori-Zwanzig formalism. <i>Journal of Chemical Physics</i> , 2015 , 143, 243128	3.9	77
338	A Generalized Spectral Collocation Method with Tunable Accuracy for Variable-Order Fractional Differential Equations. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, A2710-A2732	2.6	76
337	A unified Petrov-Galerkin spectral method for fractional PDEs. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015 , 283, 1545-1569	5.7	74
336	Discontinuous Spectral Element Methods for Time- and Space-Fractional Advection Equations. <i>SIAM Journal of Scientific Computing</i> , 2014 , 36, B684-B707	2.6	74
335	Wall shear stress-based model for adhesive dynamics of red blood cells in malaria. <i>Biophysical Journal</i> , 2011 , 100, 2084-93	2.9	74
334	Combined simulation and experimental study of large deformation of red blood cells in microfluidic systems. <i>Annals of Biomedical Engineering</i> , 2011 , 39, 1041-50	4.7	74
333	Construction of dissipative particle dynamics models for complex fluids via the Mori-Zwanzig formulation. <i>Soft Matter</i> , 2014 , 10, 8659-72	3.6	73
332	A General Shear-Dependent Model for Thrombus Formation. <i>PLoS Computational Biology</i> , 2017 , 13, e1005291	7.3	73
331	Fractional-order viscoelasticity in one-dimensional blood flow models. <i>Annals of Biomedical Engineering</i> , 2014 , 42, 1012-23	4.7	72
330	Gappy data: To Krig or not to Krig?. <i>Journal of Computational Physics</i> , 2006 , 212, 358-382	4.1	72
329	Physics-informed neural networks for inverse problems in nano-optics and metamaterials. <i>Optics Express</i> , 2020 , 28, 11618-11633	3.3	72
328	Smoothed profile method for particulate flows: Error analysis and simulations. <i>Journal of Computational Physics</i> , 2009 , 228, 1750-1769	4.1	71
327	Second-order numerical methods for multi-term fractional differential equations: Smooth and non-smooth solutions. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 327, 478-502	5.7	70
326	Multifidelity Information Fusion Algorithms for High-Dimensional Systems and Massive Data sets. <i>SIAM Journal of Scientific Computing</i> , 2016 , 38, B521-B538	2.6	69

325	Multi-fidelity modelling via recursive co-kriging and Gaussian-Markov random fields. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015 , 471, 20150018	2.4	68
324	Spectral Polynomial Chaos Solutions of the Stochastic Advection Equation. <i>Journal of Scientific Computing</i> , 2002 , 17, 319-338	2.3	67
323	PPINN: Parareal physics-informed neural network for time-dependent PDEs. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020 , 370, 113250	5.7	67
322	B-PINNs: Bayesian physics-informed neural networks for forward and inverse PDE problems with noisy data. <i>Journal of Computational Physics</i> , 2021 , 425, 109913	4.1	66
321	Self-Cleaning of Hydrophobic Rough Surfaces by Coalescence-Induced Wetting Transition. <i>Langmuir</i> , 2019 , 35, 2431-2442	4	65
320	Blood-plasma separation in Y-shaped bifurcating microfluidic channels: a dissipative particle dynamics simulation study. <i>Physical Biology</i> , 2012 , 9, 026010	3	64
319	Coarse-graining limits in open and wall-bounded dissipative particle dynamics systems. <i>Journal of Chemical Physics</i> , 2006 , 124, 184101	3.9	64
318	Energy-conserving dissipative particle dynamics with temperature-dependent properties. <i>Journal of Computational Physics</i> , 2014 , 265, 113-127	4.1	63
317	Blood flow in small tubes: quantifying the transition to the non-continuum regime. <i>Journal of Fluid Mechanics</i> , 2013 , 722,	3.7	62
316	Flow instability and wall shear stress variation in intracranial aneurysms. <i>Journal of the Royal Society Interface</i> , 2010 , 7, 967-88	4.1	62
315	Extraction of mechanical properties of materials through deep learning from instrumented indentation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 7052-7062	11.5	60
314	Computational biorheology of human blood flow in health and disease. <i>Annals of Biomedical Engineering</i> , 2014 , 42, 368-87	4.7	60
313	A comparative study between dissipative particle dynamics and molecular dynamics for simple- and complex-geometry flows. <i>Journal of Chemical Physics</i> , 2005 , 123, 104107	3.9	60
312	Steady shear rheometry of dissipative particle dynamics models of polymer fluids in reverse Poiseuille flow. <i>Journal of Chemical Physics</i> , 2010 , 132, 144103	3.9	59
311	Biomechanics and biorheology of red blood cells in sickle cell anemia. <i>Journal of Biomechanics</i> , 2017 , 50, 34-41	2.9	58
310	Quantifying the rheological and hemodynamic characteristics of sickle cell anemia. <i>Biophysical Journal</i> , 2012 , 102, 185-94	2.9	56
309	Analyzing transient turbulence in a stenosed carotid artery by proper orthogonal decomposition. <i>Annals of Biomedical Engineering</i> , 2009 , 37, 2200-17	4.7	56
308	Tempered Fractional Sturm--Liouville EigenProblems. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, A1777-A1800	2.6	55

307	A Spectral Method (of Exponential Convergence) for Singular Solutions of the Diffusion Equation with General Two-Sided Fractional Derivative. <i>SIAM Journal on Numerical Analysis</i> , 2018 , 56, 24-49	2.4	54
306	Probing red blood cell mechanics, rheology and dynamics with a two-component multi-scale model. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014 , 372,	3	54
305	Probing vasoocclusion phenomena in sickle cell anemia via mesoscopic simulations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 11326-30	11.5	54
304	Effects of Oblique Inflow in Vortex-Induced Vibrations. <i>Flow, Turbulence and Combustion</i> , 2003 , 71, 375-389	3.9	54
303	Enabling High-Dimensional Hierarchical Uncertainty Quantification by ANOVA and Tensor-Train Decomposition. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2015 , 34, 63-76	2.5	53
302	A convergence study of a new partitioned fluid-structure interaction algorithm based on fictitious mass and damping. <i>Journal of Computational Physics</i> , 2012 , 231, 629-652	4.1	53
301	Large-scale simulation of the human arterial tree. <i>Clinical and Experimental Pharmacology and Physiology</i> , 2009 , 36, 194-205	3	53
300	Simulation and modelling of slip flow over surfaces grafted with polymer brushes and glycocalyx fibres. <i>Journal of Fluid Mechanics</i> , 2012 , 711,	3.7	52
299	Spectral element simulations of laminar and turbulent flows in complex geometries. <i>Applied Numerical Mathematics</i> , 1989 , 6, 85-105	2.5	52
298	Mechanics of diseased red blood cells in human spleen and consequences for hereditary blood disorders. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 9574-9579	11.5	52
297	Computing the non-Markovian coarse-grained interactions derived from the Mori-Zwanzig formalism in molecular systems: Application to polymer melts. <i>Journal of Chemical Physics</i> , 2017 , 146, 014104	3.9	51
296	A fractional phase-field model for two-phase flows with tunable sharpness: Algorithms and simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016 , 305, 376-404	5.7	50
295	Predicting dynamics and rheology of blood flow: A comparative study of multiscale and low-dimensional models of red blood cells. <i>Microvascular Research</i> , 2011 , 82, 163-70	3.7	50
294	A dissipative particle dynamics method for arbitrarily complex geometries. <i>Journal of Computational Physics</i> , 2018 , 355, 534-547	4.1	50
293	Physics-Informed Generative Adversarial Networks for Stochastic Differential Equations. <i>SIAM Journal of Scientific Computing</i> , 2020 , 42, A292-A317	2.6	49
292	Fractional modeling of viscoelasticity in 3D cerebral arteries and aneurysms. <i>Journal of Computational Physics</i> , 2016 , 323, 219-242	4.1	49
291	Multiscale Universal Interface: A concurrent framework for coupling heterogeneous solvers. <i>Journal of Computational Physics</i> , 2015 , 297, 13-31	4.1	49
290	Time-dependent and outflow boundary conditions for Dissipative Particle Dynamics. <i>Journal of Computational Physics</i> , 2011 , 230, 3765-377	4.1	49

289	Model inversion via multi-fidelity Bayesian optimization: a new paradigm for parameter estimation in haemodynamics, and beyond. <i>Journal of the Royal Society Interface</i> , 2016 , 13,	4.1	49
288	Schmidt number effects in dissipative particle dynamics simulation of polymers. <i>Journal of Chemical Physics</i> , 2006 , 125, 184902	3.9	48
287	A discontinuous Galerkin method for the Navier-Stokes equations. <i>International Journal for Numerical Methods in Fluids</i> , 1999 , 29, 587-603	1.9	48
286	Unsteady Two-Dimensional Flows in Complex Geometries: Comparative Bifurcation Studies with Global Eigenfunction Expansions. <i>SIAM Journal of Scientific Computing</i> , 1997 , 18, 775-805	2.6	47
285	Multiscale modeling meets machine learning: What can we learn?. <i>Archives of Computational Methods in Engineering</i> , 2021 , 28, 1017-1037	7.8	47
284	Fast difference schemes for solving high-dimensional time-fractional subdiffusion equations. <i>Journal of Computational Physics</i> , 2016 , 307, 15-33	4.1	46
283	A computable evolution equation for the joint response-excitation probability density function of stochastic dynamical systems. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2012 , 468, 759-783	2.4	46
282	Stochastic bifurcation analysis of Rayleigh-Bard convection. <i>Journal of Fluid Mechanics</i> , 2010 , 650, 391-413	3.7	46
281	Basis Functions for Triangular and Quadrilateral High-Order Elements. <i>SIAM Journal of Scientific Computing</i> , 1999 , 20, 1671-1695	2.6	46
280	Implicit-Explicit Difference Schemes for Nonlinear Fractional Differential Equations with Nonsmooth Solutions. <i>SIAM Journal of Scientific Computing</i> , 2016 , 38, A3070-A3093	2.6	46
279	A Generalized Spectral Collocation Method with Tunable Accuracy for Fractional Differential Equations with End-Point Singularities. <i>SIAM Journal of Scientific Computing</i> , 2017 , 39, A360-A383	2.6	45
278	Single-particle hydrodynamics in DPD: A new formulation. <i>Europhysics Letters</i> , 2008 , 84, 10012	1.6	45
277	Lock-in of the vortex-induced vibrations of a long tensioned beam in shear flow. <i>Journal of Fluids and Structures</i> , 2011 , 27, 838-847	3.1	44
276	Stochastic low-dimensional modelling of a random laminar wake past a circular cylinder. <i>Journal of Fluid Mechanics</i> , 2008 , 606, 339-367	3.7	44
275	DPIV-driven flow simulation: a new computational paradigm. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2003 , 459, 547-565	2.4	44
274	Distributed lock-in drives broadband vortex-induced vibrations of a long flexible cylinder in shear flow. <i>Journal of Fluid Mechanics</i> , 2013 , 717, 361-375	3.7	43
273	Adaptive Generalized Polynomial Chaos for Nonlinear Random Oscillators. <i>SIAM Journal of Scientific Computing</i> , 2004 , 26, 720-735	2.6	43
272	Sub-cellular modeling of platelet transport in blood flow through microchannels with constriction. <i>Soft Matter</i> , 2016 , 12, 4339-51	3.6	43

271	Petrov--Galerkin and Spectral Collocation Methods for Distributed Order Differential Equations. <i>SIAM Journal of Scientific Computing</i> , 2017 , 39, A1003-A1037	2.6	42
270	Patient-specific blood rheology in sickle-cell anaemia. <i>Interface Focus</i> , 2016 , 6, 20150065	3.9	42
269	Spectral and Discontinuous Spectral Element Methods for Fractional Delay Equations. <i>SIAM Journal of Scientific Computing</i> , 2014 , 36, B904-B929	2.6	41
268	Generalized fictitious methods for fluid-structure interactions: Analysis and simulations. <i>Journal of Computational Physics</i> , 2013 , 245, 317-346	4.1	41
267	hp-VPINNs: Variational physics-informed neural networks with domain decomposition. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021 , 374, 113547	5.7	41
266	Reinforcement learning for bluff body active flow control in experiments and simulations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 26091-26098	11.5	40
265	Locally adaptive activation functions with slope recovery for deep and physics-informed neural networks. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020 , 476, 20200334	2.4	40
264	Physics-Informed Neural Networks for Heat Transfer Problems. <i>Journal of Heat Transfer</i> , 2021 , 143,	1.8	40
263	Potassium buffering in the neurovascular unit: models and sensitivity analysis. <i>Biophysical Journal</i> , 2013 , 105, 2046-54	2.9	39
262	Modeling of Biomechanics and Biorheology of Red Blood Cells in Type 2 Diabetes Mellitus. <i>Biophysical Journal</i> , 2017 , 113, 481-490	2.9	39
261	Adaptive finite element method for fractional differential equations using hierarchical matrices. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 325, 56-76	5.7	39
260	Dissipative particle dynamics simulation of depletion layer and polymer migration in micro- and nanochannels for dilute polymer solutions. <i>Journal of Chemical Physics</i> , 2008 , 128, 144903	3.9	39
259	Supersensitivity due to uncertain boundary conditions. <i>International Journal for Numerical Methods in Engineering</i> , 2004 , 61, 2114-2138	2.4	38
258	Transport dissipative particle dynamics model for mesoscopic advection-diffusion-reaction problems. <i>Journal of Chemical Physics</i> , 2015 , 143, 014101	3.9	37
257	Learning in Modal Space: Solving Time-Dependent Stochastic PDEs Using Physics-Informed Neural Networks. <i>SIAM Journal of Scientific Computing</i> , 2020 , 42, A639-A665	2.6	37
256	Generalized Stokes Eigenfunctions: A New Trial Basis for the Solution of Incompressible Navier-Stokes Equations. <i>Journal of Computational Physics</i> , 1994 , 115, 121-146	4.1	37
255	Dispersion in a curved tube during oscillatory flow. <i>Journal of Fluid Mechanics</i> , 1991 , 223, 537	3.7	37
254	MD/DPD Multiscale Framework for Predicting Morphology and Stresses of Red Blood Cells in Health and Disease. <i>PLoS Computational Biology</i> , 2016 , 12, e1005173	5	37

253	Systems biology informed deep learning for inferring parameters and hidden dynamics. <i>PLoS Computational Biology</i> , 2020 , 16, e1007575	5	37
252	An effective fractal-tree closure model for simulating blood flow in large arterial networks. <i>Annals of Biomedical Engineering</i> , 2015 , 43, 1432-42	4.7	36
251	Inflow/Outflow Boundary Conditions for Particle-Based Blood Flow Simulations: Application to Arterial Bifurcations and Trees. <i>PLoS Computational Biology</i> , 2015 , 11, e1004410	5	36
250	Effect of chain chirality on the self-assembly of sickle hemoglobin. <i>Biophysical Journal</i> , 2012 , 103, 1130-40	4.9	36
249	Stochastic Computational Fluid Mechanics. <i>Computing in Science and Engineering</i> , 2007 , 9, 21-29	1.5	36
248	Combined effects of pulsatile flow and dynamic curvature on wall shear stress in a coronary artery bifurcation model. <i>Journal of Biomechanics</i> , 2005 , 38, 1283-90	2.9	36
247	Physics-Informed Neural Network for Ultrasound Nondestructive Quantification of Surface Breaking Cracks. <i>Journal of Nondestructive Evaluation</i> , 2020 , 39, 1	2.1	36
246	Wake-body resonance of long flexible structures is dominated by counterclockwise orbits. <i>Physical Review Letters</i> , 2011 , 107, 134502	7.4	35
245	GPU-accelerated Red Blood Cells Simulations with Transport Dissipative Particle Dynamics. <i>Computer Physics Communications</i> , 2017 , 217, 171-179	4.2	34
244	OpenRBC: A Fast Simulator of Red Blood Cells at Protein Resolution. <i>Biophysical Journal</i> , 2017 , 112, 2030-37	3.0	34
243	Accelerating dissipative particle dynamics simulations on GPUs: Algorithms, numerics and applications. <i>Computer Physics Communications</i> , 2014 , 185, 2809-2822	4.2	34
242	Wall shear stress and pressure distribution on aneurysms and infundibulae in the posterior communicating artery bifurcation. <i>Annals of Biomedical Engineering</i> , 2009 , 37, 2469-87	4.7	34
241	A Petrov-Galerkin spectral element method for fractional elliptic problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 324, 512-536	5.7	33
240	Optimal Error Estimates of Spectral Petrov-Galerkin and Collocation Methods for Initial Value Problems of Fractional Differential Equations. <i>SIAM Journal on Numerical Analysis</i> , 2015 , 53, 2074-2096	2.4	33
239	Multi-frequency vortex-induced vibrations of a long tensioned beam in linear and exponential shear flows. <i>Journal of Fluids and Structures</i> , 2013 , 41, 33-42	3.1	33
238	Discovering variable fractional orders of advection-dispersion equations from field data using multi-fidelity Bayesian optimization. <i>Journal of Computational Physics</i> , 2017 , 348, 694-714	4.1	33
237	Stochastic Solutions for the Two-Dimensional Advection-Diffusion Equation. <i>SIAM Journal of Scientific Computing</i> , 2004 , 26, 578-590	2.6	33
236	Computational Biomechanics of Human Red Blood Cells in Hematological Disorders. <i>Journal of Biomechanical Engineering</i> , 2017 , 139,	2.1	32

235	The stochastic piston problem. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 15840-5	11.5	31
234	A comparative study of coarse-graining methods for polymeric fluids: Mori-Zwanzig vs. iterative Boltzmann inversion vs. stochastic parametric optimization. <i>Journal of Chemical Physics</i> , 2016 , 145, 044102	10.2	31
233	Simultaneous polymerization and adhesion under hypoxia in sickle cell disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 9473-9478	11.5	31
232	Suppression of vortex-induced vibrations by fairings: A numerical study. <i>Journal of Fluids and Structures</i> , 2015 , 54, 679-700	3.1	30
231	Solving elliptic problems with non-Gaussian spatially-dependent random coefficients. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2009 , 198, 1985-1995	5.7	30
230	Noisy inflows cause a shedding-mode switching in flow past an oscillating cylinder. <i>Physical Review Letters</i> , 2004 , 92, 154501	7.4	30
229	Physics-informed neural networks (PINNs) for fluid mechanics: a review. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 1	2	30
228	Cytoskeleton Remodeling Induces Membrane Stiffness and Stability Changes of Maturing Reticulocytes. <i>Biophysical Journal</i> , 2018 , 114, 2014-2023	2.9	29
227	Spectral distributed Lagrange multiplier method: algorithm and benchmark tests. <i>Journal of Computational Physics</i> , 2004 , 195, 695-717	4.1	29
226	Simulations of dynamic self-assembly of paramagnetic microspheres in confined microgeometries. <i>Journal of Micromechanics and Microengineering</i> , 2005 , 15, 2298-2308	2	29
225	Computing Fractional Laplacians on Complex-Geometry Domains: Algorithms and Simulations. <i>SIAM Journal of Scientific Computing</i> , 2017 , 39, A1320-A1344	2.6	28
224	Parallel spectral-element Fourier simulation of turbulent flow over riblet-mounted surfaces. <i>Theoretical and Computational Fluid Dynamics</i> , 1992 , 3, 219-229	2.3	28
223	Multiscale modeling and simulation of brain blood flow. <i>Physics of Fluids</i> , 2016 , 28, 021304	4.4	27
222	A robotic Intelligent Towing Tank for learning complex fluid-structure dynamics. <i>Science Robotics</i> , 2019 , 4,	18.6	27
221	Quantifying Platelet Margination in Diabetic Blood Flow. <i>Biophysical Journal</i> , 2018 , 115, 1371-1382	2.9	27
220	Modeling Electrokinetic Flows by the Smoothed Profile Method. <i>Journal of Computational Physics</i> , 2010 , 229, 3828-3847	4.1	26
219	Turbulent drag reduction by constant near-wall forcing. <i>Journal of Fluid Mechanics</i> , 2007 , 582, 79-101	3.7	26
218	Stochastic simulation of riser-sections with uncertain measured pressure loads and/or uncertain material properties. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2007 , 196, 4250-4271	5.7	26

217	Selecting the Numerical Flux in Discontinuous Galerkin Methods for Diffusion Problems. <i>Journal of Scientific Computing</i> , 2005 , 22-23, 385-411	2.3	26
216	A Spectral Element-FCT Method for the Compressible Euler Equations. <i>Journal of Computational Physics</i> , 1994 , 115, 65-85	4.1	26
215	Chaotic transport in two- and three-dimensional flow past a cylinder. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991 , 3, 1051-1062		26
214	On the validity of the independence principle applied to the vortex-induced vibrations of a flexible cylinder inclined at 60°. <i>Journal of Fluids and Structures</i> , 2015 , 53, 58-69	3.1	25
213	Dual-level parallelism for high-order CFD methods. <i>Parallel Computing</i> , 2004 , 30, 1-20	1	25
212	Coarse Resolution Turbulence Simulations With Spectral Vanishing Viscosity Large-Eddy Simulations (SVV-LES). <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2002 , 124, 886-891	2.1	25
211	Flow over an espresso cup: inferring 3-D velocity and pressure fields from tomographic background oriented Schlieren via physics-informed neural networks. <i>Journal of Fluid Mechanics</i> , 2021 , 915,	3.7	25
210	A tunable finite difference method for fractional differential equations with non-smooth solutions. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 318, 193-214	5.7	24
209	Neural-net-induced Gaussian process regression for function approximation and PDE solution. <i>Journal of Computational Physics</i> , 2019 , 384, 270-288	4.1	24
208	Parallel multiscale simulations of a brain aneurysm. <i>Journal of Computational Physics</i> , 2013 , 244, 131-147	4.1	24
207	Modeling Soft Tissue Damage and Failure Using a Combined Particle/Continuum Approach. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017 , 16, 249-261	3.8	24
206	Efficient removal of boundary-divergence errors in time-splitting methods. <i>Journal of Scientific Computing</i> , 1989 , 4, 291-308	2.3	24
205	Computational reducibility of unsteady viscous flows. <i>Physics of Fluids A, Fluid Dynamics</i> , 1990 , 2, 653-656		24
204	Non-Equilibrium Dynamics of Vesicles and Micelles by Self-Assembly of Block Copolymers with Double Thermoresponsivity. <i>Macromolecules</i> , 2016 , 49, 2895-2903	5.5	24
203	Multi-resolution flow simulations by smoothed particle hydrodynamics via domain decomposition. <i>Journal of Computational Physics</i> , 2015 , 297, 132-155	4.1	23
202	Active learning of constitutive relation from mesoscopic dynamics for macroscopic modeling of non-Newtonian flows. <i>Journal of Computational Physics</i> , 2018 , 363, 116-127	4.1	23
201	Phasing mechanisms between the in-line and cross-flow vortex-induced vibrations of a long tensioned beam in shear flow. <i>Computers and Structures</i> , 2013 , 122, 155-163	4.5	23
200	A bidirectional model for communication in the neurovascular unit. <i>Journal of Theoretical Biology</i> , 2012 , 311, 80-93	2.3	23

199	A three-dimensional phase-field model for multiscale modeling of thrombus biomechanics in blood vessels. <i>PLoS Computational Biology</i> , 2020 , 16, e1007709	5	22
198	Mapping the properties of the vortex-induced vibrations of flexible cylinders in uniform oncoming flow. <i>Journal of Fluid Mechanics</i> , 2019 , 881, 815-858	3.7	22
197	Error Estimates for the ANOVA Method with Polynomial Chaos Interpolation: Tensor Product Functions. <i>SIAM Journal of Scientific Computing</i> , 2012 , 34, A1165-A1186	2.6	22
196	A stochastic modeling methodology based on weighted Wiener chaos and Malliavin calculus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 14189-94	11.5	22
195	Numerical studies of the stochastic Korteweg-de Vries equation. <i>Journal of Computational Physics</i> , 2006 , 213, 676-703	4.1	22
194	Uncertainty quantification in simulation science. <i>Journal of Computational Physics</i> , 2006 , 217, 1-4	4.1	22
193	Multi-fidelity modelling of mixed convection based on experimental correlations and numerical simulations. <i>Journal of Fluid Mechanics</i> , 2016 , 809, 895-917	3.7	22
192	DeepM&Mnet: Inferring the electroconvection multiphysics fields based on operator approximation by neural networks. <i>Journal of Computational Physics</i> , 2021 , 436, 110296	4.1	22
191	A Petrov--Galerkin Spectral Method of Linear Complexity for Fractional Multiterm ODEs on the Half Line. <i>SIAM Journal of Scientific Computing</i> , 2017 , 39, A922-A946	2.6	21
190	Nature of intrinsic uncertainties in equilibrium molecular dynamics estimation of shear viscosity for simple and complex fluids. <i>Journal of Chemical Physics</i> , 2018 , 149, 044510	3.9	21
189	A reconstruction method for gappy and noisy arterial flow data. <i>IEEE Transactions on Medical Imaging</i> , 2007 , 26, 1681-97	11.7	21
188	Stochastic heat transfer enhancement in a grooved channel. <i>Journal of Fluid Mechanics</i> , 2006 , 565, 255	3.7	21
187	A Penalty Method for the Vorticity-Velocity Formulation. <i>Journal of Computational Physics</i> , 1999 , 149, 32-58	4.1	21
186	Artificial intelligence velocimetry and microaneurysm-on-a-chip for three-dimensional analysis of blood flow in physiology and disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	21
185	A partitioned coupling framework for peridynamics and classical theory: Analysis and simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018 , 340, 905-931	5.7	21
184	Quantification of sampling uncertainty for molecular dynamics simulation: Time-dependent diffusion coefficient in simple fluids. <i>Journal of Computational Physics</i> , 2015 , 302, 485-508	4.1	20
183	Operator learning for predicting multiscale bubble growth dynamics. <i>Journal of Chemical Physics</i> , 2021 , 154, 104118	3.9	20
182	An atomistic fingerprint algorithm for learning ab initio molecular force fields. <i>Journal of Chemical Physics</i> , 2018 , 148, 034101	3.9	19

181	Modeling and optimization of colloidal micro-pumps. <i>Journal of Micromechanics and Microengineering</i> , 2004 , 14, 567-575	2	19
180	Strong and Auxiliary Forms of the Semi-Lagrangian Method for Incompressible Flows. <i>Journal of Scientific Computing</i> , 2005 , 25, 323-346	2.3	19
179	A new mechanism of period doubling in free shear flows. <i>Physics of Fluids A, Fluid Dynamics</i> , 1992 , 4, 1329-1332	19	
178	Non-invasive Inference of Thrombus Material Properties with Physics-Informed Neural Networks. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021 , 375, 113603-113603	5.7	19
177	Efficient Multistep Methods for Tempered Fractional Calculus: Algorithms and Simulations. <i>SIAM Journal of Scientific Computing</i> , 2019 , 41, A2510-A2535	2.6	18
176	U-shaped fairings suppress vortex-induced vibrations for cylinders in cross-flow. <i>Journal of Fluid Mechanics</i> , 2015 , 782, 300-332	3.7	18
175	Optimization of a z-source DC circuit breaker 2013 ,		18
174	Modeling of blood flow in arterial trees. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2010 , 2, 612-623	6.6	18
173	NEKTAR, SPICE and Vortronics: using federated grids for large scale scientific applications. <i>Cluster Computing</i> , 2007 , 10, 351-364	2.1	18
172	A family of time-staggered schemes for integrating hybrid DPD models for polymers: Algorithms and applications. <i>Journal of Computational Physics</i> , 2006 , 218, 82-101	4.1	18
171	Parallel benchmarks of turbulence in complex geometries. <i>Computers and Fluids</i> , 1996 , 25, 677-698	2.8	18
170	A stabilized semi-implicit Fourier spectral method for nonlinear space-fractional reaction-diffusion equations. <i>Journal of Computational Physics</i> , 2020 , 405, 109141	4.1	18
169	SympNets: Intrinsic structure-preserving symplectic networks for identifying Hamiltonian systems. <i>Neural Networks</i> , 2020 , 132, 166-179	9.1	18
168	Probing the Twisted Structure of Sickle Hemoglobin Fibers via Particle Simulations. <i>Biophysical Journal</i> , 2016 , 110, 2085-93	2.9	18
167	Time-Splitting Schemes for Fractional Differential Equations I: Smooth Solutions. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, A1752-A1776	2.6	17
166	Data-driven Modeling of Hemodynamics and its Role on Thrombus Size and Shape in Aortic Dissections. <i>Scientific Reports</i> , 2018 , 8, 2515	4.9	17
165	Machine Learning of Space-Fractional Differential Equations. <i>SIAM Journal of Scientific Computing</i> , 2019 , 41, A2485-A2509	2.6	17
164	Adaptive Discontinuous Galerkin Method for Response-Excitation PDF Equations. <i>SIAM Journal of Scientific Computing</i> , 2013 , 35, B890-B911	2.6	17

163	Construction of non-Markovian coarse-grained models employing the Mori-Zwanzig formalism and iterative Boltzmann inversion. <i>Journal of Chemical Physics</i> , 2017 , 147, 244110	3.9	17
162	EOF-based constrained sensor placement and field reconstruction from noisy ocean measurements: Application to Nantucket Sound. <i>Journal of Geophysical Research</i> , 2010 , 115,		17
161	Sub-iteration leads to accuracy and stability enhancements of semi-implicit schemes for the Navier-Stokes equations. <i>Journal of Computational Physics</i> , 2011 , 230, 4384-4402	4.1	17
160	cDPD: A new dissipative particle dynamics method for modeling electrokinetic phenomena at the mesoscale. <i>Journal of Chemical Physics</i> , 2016 , 145, 144109	3.9	17
159	Multi-domain spectral collocation method for variable-order nonlinear fractional differential equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019 , 348, 377-395	5.7	17
158	Quantifying Shear-Induced Deformation and Detachment of Individual Adherent Sickle Red Blood Cells. <i>Biophysical Journal</i> , 2019 , 116, 360-371	2.9	17
157	Dynamic and rheological properties of soft biological cell suspensions. <i>Rheologica Acta</i> , 2016 , 55, 433-449	4.3	16
156	A robust bi-orthogonal/dynamically-orthogonal method using the covariance pseudo-inverse with application to stochastic flow problems. <i>Journal of Computational Physics</i> , 2017 , 344, 303-319	4.1	16
155	Fractional Gray-Scott model: Well-posedness, discretization, and simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019 , 347, 1030-1049	5.7	16
154	Numerical Methods for Stochastic Delay Differential Equations Via the Wong-Zakai Approximation. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, A295-A318	2.6	16
153	Patient-specific modeling of individual sickle cell behavior under transient hypoxia. <i>PLoS Computational Biology</i> , 2017 , 13, e1005426	5	16
152	On the equivalence of dynamically orthogonal and bi-orthogonal methods: Theory and numerical simulations. <i>Journal of Computational Physics</i> , 2014 , 270, 1-20	4.1	16
151	Fluctuating hydrodynamics in periodic domains and heterogeneous adjacent multidomains: Thermal equilibrium. <i>Physical Review E</i> , 2015 , 92, 053302	2.4	16
150	A convergence study for SPDEs using combined Polynomial Chaos and Dynamically-Orthogonal schemes. <i>Journal of Computational Physics</i> , 2013 , 245, 281-301	4.1	16
149	Wave-structure interaction: simulation driven by quantitative imaging. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2004 , 460, 729-755	2.4	16
148	Toward a Numerical Error Bar in CFD. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 1995 , 117, 7-9	2.1	16
147	Improving SWATH Seakeeping Performance using Multi-Fidelity Gaussian Process and Bayesian Optimization. <i>Journal of Ship Research</i> , 2018 , 62, 223-240	0.9	16
146	A Riesz Basis Galerkin Method for the Tempered Fractional Laplacian. <i>SIAM Journal on Numerical Analysis</i> , 2018 , 56, 3010-3039	2.4	16

145	A New Class of Semi-Implicit Methods with Linear Complexity for Nonlinear Fractional Differential Equations. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, A2986-A3011	2.6	16
144	Concurrent coupling of atomistic simulation and mesoscopic hydrodynamics for flows over soft multi-functional surfaces. <i>Soft Matter</i> , 2019 , 15, 1747-1757	3.6	15
143	Stochastic testing simulator for integrated circuits and MEMS: Hierarchical and sparse techniques 2014 ,		15
142	Non-oscillatory Spectral Element Chebyshev Method for Shock Wave Calculations. <i>Journal of Computational Physics</i> , 1993 , 107, 10-22	4.1	15
141	Deep transfer learning and data augmentation improve glucose levels prediction in type 2 diabetes patients. <i>Npj Digital Medicine</i> , 2021 , 4, 109	15.7	15
140	One-dimensional modeling of fractional flow reserve in coronary artery disease: Uncertainty quantification and Bayesian optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019 , 353, 66-85	5.7	14
139	A discontinuous Galerkin method for two-temperature plasmas. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006 , 195, 3504-3527	5.7	14
138	Integrating blood cell mechanics, platelet adhesive dynamics and coagulation cascade for modelling thrombus formation in normal and diabetic blood. <i>Journal of the Royal Society Interface</i> , 2021 , 18, 20200834	4.1	14
137	Parallel physics-informed neural networks via domain decomposition. <i>Journal of Computational Physics</i> , 2021 , 447, 110683	4.1	14
136	Fractional Burgers equation with nonlinear non-locality: Spectral vanishing viscosity and local discontinuous Galerkin methods. <i>Journal of Computational Physics</i> , 2017 , 336, 143-163	4.1	13
135	A sharp error estimate for the fast Gauss transform. <i>Journal of Computational Physics</i> , 2006 , 219, 7-12	4.1	13
134	A Semi-Lagrangian Method for Turbulence Simulations Using Mixed Spectral Discretizations. <i>Journal of Scientific Computing</i> , 2002 , 17, 585-597	2.3	13
133	Spectral element-FCT method for scalar hyperbolic conservation laws. <i>International Journal for Numerical Methods in Fluids</i> , 1992 , 14, 707-727	1.9	13
132	Data-driven physics-informed constitutive metamodeling of complex fluids: A multifidelity neural network (MFNN) framework. <i>Journal of Rheology</i> , 2021 , 65, 179-198	4.1	13
131	Systematic parameter inference in stochastic mesoscopic modeling. <i>Journal of Computational Physics</i> , 2017 , 330, 571-593	4.1	12
130	Quantifying the generalization error in deep learning in terms of data distribution and neural network smoothness. <i>Neural Networks</i> , 2020 , 130, 85-99	9.1	12
129	Analysis of hydrodynamic fluctuations in heterogeneous adjacent multidomains in shear flow. <i>Physical Review E</i> , 2016 , 93, 033312	2.4	12
128	Direct numerical simulations of two-phase flow in an inclined pipe. <i>Journal of Fluid Mechanics</i> , 2017 , 825, 189-207	3.7	12

127	A Multistage Wiener Chaos Expansion Method for Stochastic Advection-Diffusion-Reaction Equations. <i>SIAM Journal of Scientific Computing</i> , 2012 , 34, A914-A936	2.6	12
126	Wick-Malliavin approximation to nonlinear stochastic partial differential equations: analysis and simulations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013 , 469, 20130001	2.4	12
125	Quantifying Fibrinogen-Dependent Aggregation of Red Blood Cells in Type 2 Diabetes Mellitus. <i>Biophysical Journal</i> , 2020 , 119, 900-912	2.9	12
124	Predictive modelling of thrombus formation in diabetic retinal microaneurysms. <i>Royal Society Open Science</i> , 2020 , 7, 201102	3.3	12
123	Multi-fidelity Bayesian neural networks: Algorithms and applications. <i>Journal of Computational Physics</i> , 2021 , 438, 110361	4.1	12
122	Physics-informed semantic inpainting: Application to geostatistical modeling. <i>Journal of Computational Physics</i> , 2020 , 419, 109676	4.1	11
121	Controlled release of entrapped nanoparticles from thermoresponsive hydrogels with tunable network characteristics. <i>Soft Matter</i> , 2020 , 16, 4756-4766	3.6	11
120	Flow in complex domains simulated by Dissipative Particle Dynamics driven by geometry-specific body-forces. <i>Journal of Computational Physics</i> , 2016 , 305, 906-920	4.1	11
119	Quantitative prediction of erythrocyte sickling for the development of advanced sickle cell therapies. <i>Science Advances</i> , 2019 , 5, eaax3905	14.3	11
118	Stochastic smoothed profile method for modeling random roughness in flow problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013 , 263, 99-112	5.7	11
117	Mesosopic Adaptive Resolution Scheme toward Understanding of Interactions between Sickle Cell Fibers. <i>Biophysical Journal</i> , 2017 , 113, 48-59	2.9	11
116	Adaptive multi-element polynomial chaos with discrete measure: Algorithms and application to SPDEs. <i>Applied Numerical Mathematics</i> , 2015 , 90, 91-110	2.5	11
115	Sensitivity analysis and stochastic simulations of non-equilibrium plasma flow. <i>International Journal for Numerical Methods in Engineering</i> , 2009 , 80, 738-766	2.4	11
114	Random roughness enhances lift in supersonic flow. <i>Physical Review Letters</i> , 2007 , 99, 104501	7.4	11
113	Simulating and visualizing the human arterial system on the TeraGrid. <i>Future Generation Computer Systems</i> , 2006 , 22, 1011-1017	7.5	11
112	Solving Inverse Stochastic Problems from Discrete Particle Observations Using the Fokker-Planck Equation and Physics-Informed Neural Networks. <i>SIAM Journal of Scientific Computing</i> , 2021 , 43, B811-B830	2.6	11
111	Two-point stress-strain-rate correlation structure and non-local eddy viscosity in turbulent flows. <i>Journal of Fluid Mechanics</i> , 2021 , 914,	3.7	10
110	Linking Gaussian process regression with data-driven manifold embeddings for nonlinear data fusion. <i>Interface Focus</i> , 2019 , 9, 20180083	3.9	9

109	Stochastic simulations of ocean waves: An uncertainty quantification study. <i>Ocean Modelling</i> , 2015 , 86, 15-35	3	9
108	A discrete mesoscopic particle model of the mechanics of a multi-constituent arterial wall. <i>Journal of the Royal Society Interface</i> , 2016 , 13, 20150964	4.1	9
107	A spectral-element/Fourier smoothed profile method for large-eddy simulations of complex VIV problems. <i>Computers and Fluids</i> , 2018 , 172, 84-96	2.8	9
106	Statistical analysis and simulation of random shocks in stochastic Burgers equation. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014 , 470, 20140080	2.4	9
105	Towards stable coupling methods for high-order discretization of fluid-structure interaction: Algorithms and observations. <i>Journal of Computational Physics</i> , 2007 , 223, 489-518	4.1	9
104	A physics-informed variational DeepONet for predicting crack path in quasi-brittle materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022 , 391, 114587	5.7	9
103	Discovering a universal variable-order fractional model for turbulent Couette flow using a physics-informed neural network. <i>Fractional Calculus and Applied Analysis</i> , 2019 , 22, 1675-1688	2.7	9
102	An entropy-viscosity large eddy simulation study of turbulent flow in a flexible pipe. <i>Journal of Fluid Mechanics</i> , 2019 , 859, 691-730	3.7	9
101	A large-eddy simulation study on the similarity between free vibrations of a flexible cylinder and forced vibrations of a rigid cylinder. <i>Journal of Fluids and Structures</i> , 2021 , 101, 103223	3.1	9
100	Physics-informed neural networks for solving forward and inverse flow problems via the Boltzmann-BGK formulation. <i>Journal of Computational Physics</i> , 2021 , 447, 110676	4.1	9
99	DeepM&Mnet for hypersonics: Predicting the coupled flow and finite-rate chemistry behind a normal shock using neural-network approximation of operators. <i>Journal of Computational Physics</i> , 2021 , 447, 110698	4.1	9
98	Parametric Gaussian process regression for big data. <i>Computational Mechanics</i> , 2019 , 64, 409-416	4	8
97	Wiener Chaos Versus Stochastic Collocation Methods for Linear Advection-Diffusion-Reaction Equations with Multiplicative White Noise. <i>SIAM Journal on Numerical Analysis</i> , 2015 , 53, 153-183	2.4	8
96	A stabilized phase-field method for two-phase flow at high Reynolds number and large density/viscosity ratio. <i>Journal of Computational Physics</i> , 2019 , 397, 108832	4.1	8
95	Extrapolation-Based Acceleration of Iterative Solvers: Application to Simulation of 3D Flows. <i>Communications in Computational Physics</i> , 2011 , 9, 607-626	2.4	8
94	P-refinement and P-threads. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2003 , 192, 2191-2201	3.0	8
93	Spectral element-FCT method for the one- and two-dimensional compressible Euler equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1994 , 116, 113-121	5.7	8
92	Gradient-enhanced physics-informed neural networks for forward and inverse PDE problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022 , 393, 114823	5.7	8

91	Nonlocal Flocking Dynamics: Learning the Fractional Order of PDEs from Particle Simulations. <i>Communications on Applied Mathematics and Computation</i> , 2019 , 1, 597-619	0.9	7
90	Molecular hydrodynamics: Vortex formation and sound wave propagation. <i>Journal of Chemical Physics</i> , 2018 , 148, 024506	3.9	7
89	Strong and weak convergence order of finite element methods for stochastic PDEs with spatial white noise. <i>Numerische Mathematik</i> , 2016 , 134, 61-89	2.2	7
88	A Recursive Sparse Grid Collocation Method for Differential Equations with White Noise. <i>SIAM Journal of Scientific Computing</i> , 2014 , 36, A1652-A1677	2.6	7
87	Simulating turbulence in complex geometries. <i>Fluid Dynamics Research</i> , 1999 , 24, 343-362	1.2	7
86	Hybrid spectral-element-low-order methods for incompressible flows. <i>Journal of Scientific Computing</i> , 1991 , 6, 79-100	2.3	7
85	A seamless multiscale operator neural network for inferring bubble dynamics. <i>Journal of Fluid Mechanics</i> , 2021 , 929,	3.7	7
84	The flow dynamics of the garden-hose instability. <i>Journal of Fluid Mechanics</i> , 2016 , 800, 595-612	3.7	7
83	Density-dependent finite system-size effects in equilibrium molecular dynamics estimation of shear viscosity: Hydrodynamic and configurational study. <i>Journal of Chemical Physics</i> , 2019 , 151, 104101	3.9	6
82	Supervised parallel-in-time algorithm for long-time Lagrangian simulations of stochastic dynamics: Application to hydrodynamics. <i>Journal of Computational Physics</i> , 2019 , 393, 214-228	4.1	6
81	A general CFD framework for fault-resilient simulations based on multi-resolution information fusion. <i>Journal of Computational Physics</i> , 2017 , 347, 290-304	4.1	6
80	Algorithms for Propagating Uncertainty Across Heterogeneous Domains. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, A3030-A3054	2.6	6
79	Effects of thermal noise on the transitional dynamics of an inextensible elastic filament in stagnation flow. <i>Soft Matter</i> , 2015 , 11, 4962-72	3.6	6
78	. <i>Computing in Science and Engineering</i> , 2012 , 14, 58-67	1.5	6
77	Multi-element probabilistic collocation for sensitivity analysis in cellular signalling networks. <i>IET Systems Biology</i> , 2009 , 3, 239-254	1.4	6
76	Flow-induced vibrations of non-linear cables. Part 1: Models and algorithms. <i>International Journal for Numerical Methods in Engineering</i> , 2002 , 55, 535-556	2.4	6
75	Towards a unified theory of fractional and nonlocal vector calculus. <i>Fractional Calculus and Applied Analysis</i> , 2021 , 24, 1301-1355	2.7	6
74	How the spleen reshapes and retains young and old red blood cells: A computational investigation. <i>PLoS Computational Biology</i> , 2021 , 17, e1009516	5	6

73	Deep Kronecker neural networks: A general framework for neural networks with adaptive activation functions. <i>Neurocomputing</i> , 2022 , 468, 165-180	5-4	6
72	Fractional magneto-hydrodynamics: Algorithms and applications. <i>Journal of Computational Physics</i> , 2019 , 378, 44-62	4-1	6
71	Learning and meta-learning of stochastic advection-diffusion-reaction systems from sparse measurements. <i>European Journal of Applied Mathematics</i> , 2021 , 32, 397-420	1	6
70	Active- and transfer-learning applied to microscale-macroscale coupling to simulate viscoelastic flows. <i>Journal of Computational Physics</i> , 2021 , 427, 110069	4-1	6
69	A resilient and efficient CFD framework: Statistical learning tools for multi-fidelity and heterogeneous information fusion. <i>Journal of Computational Physics</i> , 2017 , 344, 516-533	4-1	5
68	Numerical Methods for SPDEs with Tempered Stable Processes. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, A1197-A1217	2-6	5
67	A fast solver for spectral elements applied to fractional differential equations using hierarchical matrix approximation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020 , 366, 113053	5-7	5
66	A Computational Stochastic Methodology for the Design of Random Meta-materials under Geometric Constraints. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, B353-B378	2-6	5
65	A probabilistic framework for multidisciplinary design: Application to the hydrostructural optimization of supercavitating hydrofoils. <i>International Journal for Numerical Methods in Engineering</i> , 2018 , 116, 246-269	2-4	5
64	A hybrid spectral/DG method for solving the phase-averaged ocean wave equation: Algorithm and validation. <i>Journal of Computational Physics</i> , 2012 , 231, 4921-4953	4-1	5
63	Numerical solution of the Stratonovich- and Ito-Euler equations: Application to the stochastic piston problem. <i>Journal of Computational Physics</i> , 2013 , 236, 15-27	4-1	5
62	Runtime visualization of the human arterial tree. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2007 , 13, 810-21	4	5
61	The crisis of transport measures in chaotic flow past a cylinder. <i>Physics of Fluids A, Fluid Dynamics</i> , 1989 , 1, 628-630		5
60	Computational modeling of biomechanics and biorheology of heated red blood cells. <i>Biophysical Journal</i> , 2021 , 120, 4663-4671	2-9	5
59	Learning functionals via LSTM neural networks for predicting vessel dynamics in extreme sea states. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2021 , 477, 20190897	2-4	5
58	A comprehensive and fair comparison of two neural operators (with practical extensions) based on FAIR data. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022 , 393, 114778	5-7	5
57	Brownian Motion of a Rayleigh Particle Confined in a Channel: A Generalized Langevin Equation Approach. <i>Journal of Statistical Physics</i> , 2015 , 158, 1100-1125	1-5	4
56	Preface: theory, methods, and applications of mesoscopic modeling. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2018 , 39, 1-2	3-2	4

55	Visualizing multiphysics, fluid-structure interaction phenomena in intracranial aneurysms. <i>Parallel Computing</i> , 2016 , 55, 9-16	1	4
54	Understanding the Twisted Structure of Amyloid Fibrils via Molecular Simulations. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 11302-11310	3-4	4
53	A semi-local spectral/hp element solver for linear elasticity problems. <i>International Journal for Numerical Methods in Engineering</i> , 2014 , 100, 347-373	2-4	4
52	Parallel DNS algorithms on unstructured grids. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2000 , 184, 401-425	5-7	4
51	Computational investigation of blood cell transport in retinal microaneurysms.. <i>PLoS Computational Biology</i> , 2022 , 18, e1009728	5	4
50	Identifiability and predictability of integer- and fractional-order epidemiological models using physics-informed neural networks. <i>Nature Computational Science</i> , 2021 , 1, 744-753		4
49	Potential Flow Generator With L1-Optimal Transport Regularity for Generative Models. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2020 , PP,	10-3	4
48	Turbulence in a Localized Puff in a Pipe. <i>Flow, Turbulence and Combustion</i> , 2019 , 103, 1-24	2-5	4
47	Multiscale parareal algorithm for long-time mesoscopic simulations of microvascular blood flow in zebrafish. <i>Computational Mechanics</i> , 2021 , 68, 1131-1152	4	4
46	Anisotropic single-particle dissipative particle dynamics model. <i>Journal of Computational Physics</i> , 2017 , 336, 481-491	4-1	3
45	Efficient two-dimensional simulations of the fractional Szabo equation with different time-stepping schemes. <i>Computers and Mathematics With Applications</i> , 2017 , 73, 1286-1297	2-7	3
44	A Spectral Penalty Method for Two-Sided Fractional Differential Equations with General Boundary Conditions. <i>SIAM Journal of Scientific Computing</i> , 2019 , 41, A1840-A1866	2-6	3
43	Stochastic Domain Decomposition via Moment Minimization. <i>SIAM Journal of Scientific Computing</i> , 2018 , 40, A2152-A2173	2-6	3
42	Adaptive Wick–Malliavin Approximation to Nonlinear SPDEs with Discrete Random Variables. <i>SIAM Journal of Scientific Computing</i> , 2015 , 37, A1872-A1890	2-6	3
41	Electrostatic correlations near charged planar surfaces. <i>Journal of Chemical Physics</i> , 2014 , 141, 094703	3-9	3
40	Modeling Random Roughness in Supersonic Flow Past a Wedge 2006 ,		3
39	Multilevel Parallelization Models in CFD. <i>Journal of Aerospace Computing, Information, and Communication</i> , 2004 , 1, 256-268		3
38	Flow-induced vibrations of non-linear cables. Part 2: Simulations. <i>International Journal for Numerical Methods in Engineering</i> , 2002 , 55, 557-571	2-4	3

37	Strong and auxiliary forms of the semi-Lagrangian method for incompressible flows. <i>Journal of Scientific Computing</i> , 2005 , 25, 323-346	2.3	3
36	Chaotic advection in a complex annular geometry. <i>Physics of Fluids A, Fluid Dynamics</i> , 1991 , 3, 1063-1067		3
35	nn-PINNs: Non-Newtonian physics-informed neural networks for complex fluid modeling. <i>Soft Matter</i> , 2021 ,	3.6	3
34	Simulating progressive intramural damage leading to aortic dissection using DeepONet: an operator-regression neural network.. <i>Journal of the Royal Society Interface</i> , 2022 , 19, 20210670	4.1	3
33	Physics-Informed Learning Machines for Partial Differential Equations: Gaussian Processes Versus Neural Networks. <i>Advances in Dynamics, Patterns, Cognition</i> , 2020 , 323-343	0.7	3
32	A phase-field method for boiling heat transfer. <i>Journal of Computational Physics</i> , 2021 , 435, 110239	4.1	3
31	Analyses of internal structures and defects in materials using physics-informed neural networks.. <i>Science Advances</i> , 2022 , 8, eabk0644	14.3	3
30	Interfacing finite elements with deep neural operators for fast multiscale modeling of mechanics problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022 , 115027	5.7	3
29	Fractional spectral vanishing viscosity method: Application to the quasi-geostrophic equation. <i>Chaos, Solitons and Fractals</i> , 2017 , 102, 327-332	9.3	2
28	COARSE-GRAINED MODELING OF PROTEIN UNFOLDING DYNAMICS. <i>Multiscale Modeling and Simulation</i> , 2014 , 12, 109-118	1.8	2
27	Time Correlation Functions of Brownian Motion and Evaluation of Friction Coefficient in the Near-Brownian-Limit Regime. <i>Multiscale Modeling and Simulation</i> , 2014 , 12, 225-248	1.8	2
26	Spectral interpolation in non-orthogonal domains: algorithms and applications. <i>Journal of Engineering Mathematics</i> , 2007 , 56, 201-202	1.2	2
25	Forecasting solar-thermal systems performance under transient operation using a data-driven machine learning approach based on the deep operator network architecture. <i>Energy Conversion and Management</i> , 2022 , 252, 115063	10.6	2
24	A fast multi-fidelity method with uncertainty quantification for complex data correlations: Application to vortex-induced vibrations of marine risers. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021 , 386, 114212	5.7	2
23	A Multifidelity Framework and Uncertainty Quantification for Sea Surface Temperature in the Massachusetts and Cape Cod Bays. <i>Earth and Space Science</i> , 2020 , 7, e2019EA000954	3.1	2
22	In silico biophysics and hemorheology of blood hyperviscosity syndrome. <i>Biophysical Journal</i> , 2021 , 120, 2723-2733	2.9	2
21	Moving toward realistic models: Comment on "Modeling thrombosis in silico: Frontiers, challenges, unresolved problems and milestones" by A.V. Belyaev et al. <i>Physics of Life Reviews</i> , 2018 , 26-27, 96-99	2.1	2
20	An integrated framework for building trustworthy data-driven epidemiological models: Application to the COVID-19 outbreak in New York City. <i>PLoS Computational Biology</i> , 2021 , 17, e1009334	5	2

19	Learning functional priors and posteriors from data and physics. <i>Journal of Computational Physics</i> , 2022 , 457, 111073	4.1	2
18	Meta-learning PINN loss functions. <i>Journal of Computational Physics</i> , 2022 , 458, 111121	4.1	2
17	Bi-directional coupling between a PDE-domain and an adjacent Data-domain equipped with multi-fidelity sensors. <i>Journal of Computational Physics</i> , 2018 , 374, 121-134	4.1	1
16	PARALLEL CFD BENCHMARKS ON CRAY COMPUTERS. <i>International Journal of Parallel, Emergent and Distributed Systems</i> , 1996 , 9, 273-298		1
15	Heat transfer enhancement in a transitional channel flow. <i>Journal of Wind Engineering and Industrial Aerodynamics</i> , 1993 , 49, 257-267	3.7	1
14	Identifiability and predictability of integer- and fractional-order epidemiological models using physics-informed neural networks		1
13	An open-source parallel code for computing the spectral fractional Laplacian on 3D complex geometry domains. <i>Computer Physics Communications</i> , 2021 , 261, 107695	4.2	1
12	Multiphysics and multiscale modeling of microthrombosis in COVID-19.. <i>PLoS Computational Biology</i> , 2022 , 18, e1009892	5	1
11	Sensitivity Analysis of the Shipboard Integrated Power System. <i>Naval Engineers Journal</i> , 2008 , 120, 109-121		o
10	Generative Ensemble Regression: Learning Particle Dynamics from Observations of Ensembles with Physics-informed Deep Generative Models. <i>SIAM Journal of Scientific Computing</i> , 2022 , 44, B80-B99	2.6	o
9	Deep learning of inverse water waves problems using multi-fidelity data: Application to Serre-Green-Naghdi equations. <i>Ocean Engineering</i> , 2022 , 248, 110775	3.9	o
8	Convergence analysis of the time-stepping numerical methods for time-fractional nonlinear subdiffusion equations. <i>Fractional Calculus and Applied Analysis</i> , 2022 , 25, 453-487	2.7	o
7	Hierarchical spectral basis and Galerkin formulation using barycentric quadrature grids in triangular elements. <i>Journal of Engineering Mathematics</i> , 2007 , 56, 289-306	1.2	
6	Multiscale Modeling of Diseases: Overview 2020 , 2541-2550		
5	Multiscale Modeling of Diseases: Overview 2018 , 1-10		
4	A three-dimensional phase-field model for multiscale modeling of thrombus biomechanics in blood vessels 2020 , 16, e1007709		
3	A three-dimensional phase-field model for multiscale modeling of thrombus biomechanics in blood vessels 2020 , 16, e1007709		
2	A three-dimensional phase-field model for multiscale modeling of thrombus biomechanics in blood vessels 2020 , 16, e1007709		

- 1 A three-dimensional phase-field model for multiscale modeling of thrombus biomechanics in blood vessels **2020**, 16, e1007709