

# George E Karniadakis

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	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> , <b>2022</b> , 252, 115063	10.6	2
431	Computational investigation of blood cell transport in retinal microaneurysms.. <i>PLoS Computational Biology</i> , <b>2022</b> , 18, e1009728	5	4
430	Generative Ensemble Regression: Learning Particle Dynamics from Observations of Ensembles with Physics-informed Deep Generative Models. <i>SIAM Journal of Scientific Computing</i> , <b>2022</b> , 44, B80-B99	2.6	0
429	A physics-informed variational DeepONet for predicting crack path in quasi-brittle materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2022</b> , 391, 114587	5.7	9
428	Simulating progressive intramural damage leading to aortic dissection using DeepONet: an operator-regression neural network.. <i>Journal of the Royal Society Interface</i> , <b>2022</b> , 19, 20210670	4.1	3
427	Deep Kronecker neural networks: A general framework for neural networks with adaptive activation functions. <i>Neurocomputing</i> , <b>2022</b> , 468, 165-180	5.4	6
426	Analyses of internal structures and defects in materials using physics-informed neural networks.. <i>Science Advances</i> , <b>2022</b> , 8, eabk0644	14.3	3
425	Deep learning of inverse water waves problems using multi-fidelity data: Application to Serre-Green-Naghdi equations. <i>Ocean Engineering</i> , <b>2022</b> , 248, 110775	3.9	0
424	Multiphysics and multiscale modeling of microthrombosis in COVID-19.. <i>PLoS Computational Biology</i> , <b>2022</b> , 18, e1009892	5	1
423	Gradient-enhanced physics-informed neural networks for forward and inverse PDE problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2022</b> , 393, 114823	5.7	8
422	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> , <b>2022</b> , 393, 114778	5.7	5
421	Learning functional priors and posteriors from data and physics. <i>Journal of Computational Physics</i> , <b>2022</b> , 457, 111073	4.1	2
420	Meta-learning PINN loss functions. <i>Journal of Computational Physics</i> , <b>2022</b> , 458, 111121	4.1	2
419	Convergence analysis of the time-stepping numerical methods for time-fractional nonlinear subdiffusion equations. <i>Fractional Calculus and Applied Analysis</i> , <b>2022</b> , 25, 453-487	2.7	0
418	Interfacing finite elements with deep neural operators for fast multiscale modeling of mechanics problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2022</b> , 115027	5.7	3
417	Towards a unified theory of fractional and nonlocal vector calculus. <i>Fractional Calculus and Applied Analysis</i> , <b>2021</b> , 24, 1301-1355	2.7	6
416	nn-PINNs: Non-Newtonian physics-informed neural networks for complex fluid modeling. <i>Soft Matter</i> , <b>2021</b> ,	3.6	3

4 <sup>15</sup>	Identifiability and predictability of integer- and fractional-order epidemiological models using physics-informed neural networks. <i>Nature Computational Science</i> , <b>2021</b> , 1, 744-753		4
4 <sup>14</sup>	Computational modeling of biomechanics and biorheology of heated red blood cells. <i>Biophysical Journal</i> , <b>2021</b> , 120, 4663-4671	2.9	5
4 <sup>13</sup>	A seamless multiscale operator neural network for inferring bubble dynamics. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 929,	3.7	7
4 <sup>12</sup>	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> , <b>2021</b> , 386, 114212	5.7	2
4 <sup>11</sup>	How the spleen reshapes and retains young and old red blood cells: A computational investigation. <i>PLoS Computational Biology</i> , <b>2021</b> , 17, e1009516	5	6
4 <sup>10</sup>	Learning nonlinear operators via DeepONet based on the universal approximation theorem of operators. <i>Nature Machine Intelligence</i> , <b>2021</b> , 3, 218-229	22.5	81
4 <sup>09</sup>	Operator learning for predicting multiscale bubble growth dynamics. <i>Journal of Chemical Physics</i> , <b>2021</b> , 154, 104118	3.9	20
4 <sup>08</sup>	Two-point stress-strain-rate correlation structure and non-local eddy viscosity in turbulent flows. <i>Journal of Fluid Mechanics</i> , <b>2021</b> , 914,	3.7	10
4 <sup>07</sup>	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> , <b>2021</b> , 915,	3.7	25
4 <sup>06</sup>	Non-invasive Inference of Thrombus Material Properties with Physics-Informed Neural Networks. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2021</b> , 375, 113603-113603	5.7	19
4 <sup>05</sup>	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> , <b>2021</b> , 118,	11.5	21
4 <sup>04</sup>	Physics-Informed Neural Networks for Heat Transfer Problems. <i>Journal of Heat Transfer</i> , <b>2021</b> , 143,	1.8	40
4 <sup>03</sup>	A phase-field method for boiling heat transfer. <i>Journal of Computational Physics</i> , <b>2021</b> , 435, 110239	4.1	3
4 <sup>02</sup>	In silico biophysics and hemorheology of blood hyperviscosity syndrome. <i>Biophysical Journal</i> , <b>2021</b> , 120, 2723-2733	2.9	2
4 <sup>01</sup>	Deep transfer learning and data augmentation improve glucose levels prediction in type 2 diabetes patients. <i>Npj Digital Medicine</i> , <b>2021</b> , 4, 109	15.7	15
4 <sup>00</sup>	Learning and meta-learning of stochastic advection-diffusion-reaction systems from sparse measurements. <i>European Journal of Applied Mathematics</i> , <b>2021</b> , 32, 397-420	1	6
399	Multiscale modeling meets machine learning: What can we learn?. <i>Archives of Computational Methods in Engineering</i> , <b>2021</b> , 28, 1017-1037	7.8	47
398	B-PINNs: Bayesian physics-informed neural networks for forward and inverse PDE problems with noisy data. <i>Journal of Computational Physics</i> , <b>2021</b> , 425, 109913	4.1	66

397	hp-VPINNs: Variational physics-informed neural networks with domain decomposition. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2021</b> , 374, 113547	5.7	41
396	Active- and transfer-learning applied to microscale-macroscale coupling to simulate viscoelastic flows. <i>Journal of Computational Physics</i> , <b>2021</b> , 427, 110069	4.1	6
395	An open-source parallel code for computing the spectral fractional Laplacian on 3D complex geometry domains. <i>Computer Physics Communications</i> , <b>2021</b> , 261, 107695	4.2	1
394	NSFnets (Navier-Stokes flow nets): Physics-informed neural networks for the incompressible Navier-Stokes equations. <i>Journal of Computational Physics</i> , <b>2021</b> , 426, 109951	4.1	89
393	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> , <b>2021</b> , 477, 20190897	2.4	5
392	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> , <b>2021</b> , 18, 20200834	4.1	14
391	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> , <b>2021</b> , 101, 103223	3.1	9
390	Data-driven physics-informed constitutive metamodeling of complex fluids: A multifidelity neural network (MFNN) framework. <i>Journal of Rheology</i> , <b>2021</b> , 65, 179-198	4.1	13
389	DeepM&Mnet: Inferring the electroconvection multiphysics fields based on operator approximation by neural networks. <i>Journal of Computational Physics</i> , <b>2021</b> , 436, 110296	4.1	22
388	Multi-fidelity Bayesian neural networks: Algorithms and applications. <i>Journal of Computational Physics</i> , <b>2021</b> , 438, 110361	4.1	12
387	Multiscale parareal algorithm for long-time mesoscopic simulations of microvascular blood flow in zebrafish. <i>Computational Mechanics</i> , <b>2021</b> , 68, 1131-1152	4	4
386	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> , <b>2021</b> , 17, e1009334	5	2
385	Physics-informed neural networks for solving forward and inverse flow problems via the Boltzmann-BGK formulation. <i>Journal of Computational Physics</i> , <b>2021</b> , 447, 110676	4.1	9
384	Parallel physics-informed neural networks via domain decomposition. <i>Journal of Computational Physics</i> , <b>2021</b> , 447, 110683	4.1	14
383	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> , <b>2021</b> , 447, 110698	4.1	9
382	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> , <b>2021</b> , 43, B811-B830	2.6	11
381	DeepXDE: A Deep Learning Library for Solving Differential Equations. <i>SIAM Review</i> , <b>2021</b> , 63, 208-228	7.4	132
380	A fast solver for spectral elements applied to fractional differential equations using hierarchical matrix approximation. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2020</b> , 366, 113053	5.7	5

379	Physics-informed semantic inpainting: Application to geostatistical modeling. <i>Journal of Computational Physics</i> , <b>2020</b> , 419, 109676	4.1	11
378	Learning in Modal Space: Solving Time-Dependent Stochastic PDEs Using Physics-Informed Neural Networks. <i>SIAM Journal of Scientific Computing</i> , <b>2020</b> , 42, A639-A665	2.6	37
377	Quantifying the generalization error in deep learning in terms of data distribution and neural network smoothness. <i>Neural Networks</i> , <b>2020</b> , 130, 85-99	9.1	12
376	Physics-Informed Generative Adversarial Networks for Stochastic Differential Equations. <i>SIAM Journal of Scientific Computing</i> , <b>2020</b> , 42, A292-A317	2.6	49
375	Hidden fluid mechanics: Learning velocity and pressure fields from flow visualizations. <i>Science</i> , <b>2020</b> , 367, 1026-1030	33.3	280
374	A three-dimensional phase-field model for multiscale modeling of thrombus biomechanics in blood vessels. <i>PLoS Computational Biology</i> , <b>2020</b> , 16, e1007709	5	22
373	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> , <b>2020</b> , 117, 7052-7062	11.5	60
372	Controlled release of entrapped nanoparticles from thermoresponsive hydrogels with tunable network characteristics. <i>Soft Matter</i> , <b>2020</b> , 16, 4756-4766	3.6	11
371	Physics-informed neural networks for inverse problems in nano-optics and metamaterials. <i>Optics Express</i> , <b>2020</b> , 28, 11618-11633	3.3	72
370	Systems biology informed deep learning for inferring parameters and hidden dynamics. <i>PLoS Computational Biology</i> , <b>2020</b> , 16, e1007575	5	37
369	Multiscale Modeling of Diseases: Overview <b>2020</b> , 2541-2550		
368	Physics-Informed Learning Machines for Partial Differential Equations: Gaussian Processes Versus Neural Networks. <i>Advances in Dynamics, Patterns, Cognition</i> , <b>2020</b> , 323-343	0.7	3
367	What is the fractional Laplacian? A comparative review with new results. <i>Journal of Computational Physics</i> , <b>2020</b> , 404, 109009	4.1	90
366	Physics-informed neural networks for high-speed flows. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2020</b> , 360, 112789	5.7	126
365	A Multifidelity Framework and Uncertainty Quantification for Sea Surface Temperature in the Massachusetts and Cape Cod Bays. <i>Earth and Space Science</i> , <b>2020</b> , 7, e2019EA000954	3.1	2
364	Adaptive activation functions accelerate convergence in deep and physics-informed neural networks. <i>Journal of Computational Physics</i> , <b>2020</b> , 404, 109136	4.1	97
363	A stabilized semi-implicit Fourier spectral method for nonlinear space-fractional reaction-diffusion equations. <i>Journal of Computational Physics</i> , <b>2020</b> , 405, 109141	4.1	18
362	SympNets: Intrinsic structure-preserving symplectic networks for identifying Hamiltonian systems. <i>Neural Networks</i> , <b>2020</b> , 132, 166-179	9.1	18

361	Quantifying Fibrinogen-Dependent Aggregation of Red Blood Cells in Type 2 Diabetes Mellitus. <i>Biophysical Journal</i> , <b>2020</b> , 119, 900-912	2.9	12
360	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> , <b>2020</b> , 117, 26091-26098	11.5	40
359	PPINN: Parareal physics-informed neural network for time-dependent PDEs. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2020</b> , 370, 113250	5.7	67
358	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> , <b>2020</b> , 476, 20200334	2.4	40
357	Physics-Informed Neural Network for Ultrasound Nondestructive Quantification of Surface Breaking Cracks. <i>Journal of Nondestructive Evaluation</i> , <b>2020</b> , 39, 1	2.1	36
356	Potential Flow Generator With L <sup>2</sup> Optimal Transport Regularity for Generative Models. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , <b>2020</b> , PP,	10.3	4
355	Predictive modelling of thrombus formation in diabetic retinal microaneurysms. <i>Royal Society Open Science</i> , <b>2020</b> , 7, 201102	3.3	12
354	A composite neural network that learns from multi-fidelity data: Application to function approximation and inverse PDE problems. <i>Journal of Computational Physics</i> , <b>2020</b> , 401, 109020	4.1	91
353	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> , <b>2020</b> , 365, 113028	5.7	88
352	A three-dimensional phase-field model for multiscale modeling of thrombus biomechanics in blood vessels <b>2020</b> , 16, e1007709		
351	A three-dimensional phase-field model for multiscale modeling of thrombus biomechanics in blood vessels <b>2020</b> , 16, e1007709		
350	A three-dimensional phase-field model for multiscale modeling of thrombus biomechanics in blood vessels <b>2020</b> , 16, e1007709		
349	A three-dimensional phase-field model for multiscale modeling of thrombus biomechanics in blood vessels <b>2020</b> , 16, e1007709		
348	Nonlocal Flocking Dynamics: Learning the Fractional Order of PDEs from Particle Simulations. <i>Communications on Applied Mathematics and Computation</i> , <b>2019</b> , 1, 597-619	0.9	7
347	FPINNs: Fractional Physics-Informed Neural Networks. <i>SIAM Journal of Scientific Computing</i> , <b>2019</b> , 41, A2603-A2626	2.6	110
346	Density-dependent finite system-size effects in equilibrium molecular dynamics estimation of shear viscosity: Hydrodynamic and configurational study. <i>Journal of Chemical Physics</i> , <b>2019</b> , 151, 104101	3.9	6
345	Fractional Gray-Scott model: Well-posedness, discretization, and simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2019</b> , 347, 1030-1049	5.7	16
344	Concurrent coupling of atomistic simulation and mesoscopic hydrodynamics for flows over soft multi-functional surfaces. <i>Soft Matter</i> , <b>2019</b> , 15, 1747-1757	3.6	15

343	A Spectral Penalty Method for Two-Sided Fractional Differential Equations with General Boundary Conditions. <i>SIAM Journal of Scientific Computing</i> , <b>2019</b> , 41, A1840-A1866	2.6	3
342	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> , <b>2019</b> , 353, 66-85	5.7	14
341	Parametric Gaussian process regression for big data. <i>Computational Mechanics</i> , <b>2019</b> , 64, 409-416	4	8
340	Supervised parallel-in-time algorithm for long-time Lagrangian simulations of stochastic dynamics: Application to hydrodynamics. <i>Journal of Computational Physics</i> , <b>2019</b> , 393, 214-228	4.1	6
339	Linking Gaussian process regression with data-driven manifold embeddings for nonlinear data fusion. <i>Interface Focus</i> , <b>2019</b> , 9, 20180083	3.9	9
338	Neural-net-induced Gaussian process regression for function approximation and PDE solution. <i>Journal of Computational Physics</i> , <b>2019</b> , 384, 270-288	4.1	24
337	Quantitative prediction of erythrocyte sickling for the development of advanced sickle cell therapies. <i>Science Advances</i> , <b>2019</b> , 5, eaax3905	14.3	11
336	Machine Learning of Space-Fractional Differential Equations. <i>SIAM Journal of Scientific Computing</i> , <b>2019</b> , 41, A2485-A2509	2.6	17
335	Efficient Multistep Methods for Tempered Fractional Calculus: Algorithms and Simulations. <i>SIAM Journal of Scientific Computing</i> , <b>2019</b> , 41, A2510-A2535	2.6	18
334	A stabilized phase-field method for two-phase flow at high Reynolds number and large density/viscosity ratio. <i>Journal of Computational Physics</i> , <b>2019</b> , 397, 108832	4.1	8
333	Quantifying total uncertainty in physics-informed neural networks for solving forward and inverse stochastic problems. <i>Journal of Computational Physics</i> , <b>2019</b> , 397, 108850	4.1	85
332	Mapping the properties of the vortex-induced vibrations of flexible cylinders in uniform oncoming flow. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 881, 815-858	3.7	22
331	Multi-domain spectral collocation method for variable-order nonlinear fractional differential equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2019</b> , 348, 377-395	5.7	17
330	Discovering a universal variable-order fractional model for turbulent Couette flow using a physics-informed neural network. <i>Fractional Calculus and Applied Analysis</i> , <b>2019</b> , 22, 1675-1688	2.7	9
329	A robotic Intelligent Towing Tank for learning complex fluid-structure dynamics. <i>Science Robotics</i> , <b>2019</b> , 4,	18.6	27
328	Integrating machine learning and multiscale modeling-perspectives, challenges, and opportunities in the biological, biomedical, and behavioral sciences. <i>Npj Digital Medicine</i> , <b>2019</b> , 2, 115	15.7	127
327	Deep learning of vortex-induced vibrations. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 861, 119-137	3.7	123
326	Fractional magneto-hydrodynamics: Algorithms and applications. <i>Journal of Computational Physics</i> , <b>2019</b> , 378, 44-62	4.1	6

325	An entropy-viscosity large eddy simulation study of turbulent flow in a flexible pipe. <i>Journal of Fluid Mechanics</i> , <b>2019</b> , 859, 691-730	3.7	9
324	Quantifying Shear-Induced Deformation and Detachment of Individual Adherent Sickle Red Blood Cells. <i>Biophysical Journal</i> , <b>2019</b> , 116, 360-371	2.9	17
323	Turbulence in a Localized Puff in a Pipe. <i>Flow, Turbulence and Combustion</i> , <b>2019</b> , 103, 1-24	2.5	4
322	Self-Cleaning of Hydrophobic Rough Surfaces by Coalescence-Induced Wetting Transition. <i>Langmuir</i> , <b>2019</b> , 35, 2431-2442	4	65
321	Data-driven Modeling of Hemodynamics and its Role on Thrombus Size and Shape in Aortic Dissections. <i>Scientific Reports</i> , <b>2018</b> , 8, 2515	4.9	17
320	Numerical Gaussian Processes for Time-Dependent and Nonlinear Partial Differential Equations. <i>SIAM Journal of Scientific Computing</i> , <b>2018</b> , 40, A172-A198	2.6	90
319	An atomistic fingerprint algorithm for learning ab initio molecular force fields. <i>Journal of Chemical Physics</i> , <b>2018</b> , 148, 034101	3.9	19
318	Preface: theory, methods, and applications of mesoscopic modeling. <i>Applied Mathematics and Mechanics (English Edition)</i> , <b>2018</b> , 39, 1-2	3.2	4
317	Hidden physics models: Machine learning of nonlinear partial differential equations. <i>Journal of Computational Physics</i> , <b>2018</b> , 357, 125-141	4.1	380
316	Molecular hydrodynamics: Vortex formation and sound wave propagation. <i>Journal of Chemical Physics</i> , <b>2018</b> , 148, 024506	3.9	7
315	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> , <b>2018</b> , 56, 24-49	2.4	54
314	Cytoskeleton Remodeling Induces Membrane Stiffness and Stability Changes of Maturing Reticulocytes. <i>Biophysical Journal</i> , <b>2018</b> , 114, 2014-2023	2.9	29
313	Active learning of constitutive relation from mesoscopic dynamics for macroscopic modeling of non-Newtonian flows. <i>Journal of Computational Physics</i> , <b>2018</b> , 363, 116-127	4.1	23
312	A Computational Stochastic Methodology for the Design of Random Meta-materials under Geometric Constraints. <i>SIAM Journal of Scientific Computing</i> , <b>2018</b> , 40, B353-B378	2.6	5
311	Nature of intrinsic uncertainties in equilibrium molecular dynamics estimation of shear viscosity for simple and complex fluids. <i>Journal of Chemical Physics</i> , <b>2018</b> , 149, 044510	3.9	21
310	Bi-directional coupling between a PDE-domain and an adjacent Data-domain equipped with multi-fidelity sensors. <i>Journal of Computational Physics</i> , <b>2018</b> , 374, 121-134	4.1	1
309	A spectral-element/Fourier smoothed profile method for large-eddy simulations of complex VIV problems. <i>Computers and Fluids</i> , <b>2018</b> , 172, 84-96	2.8	9
308	Stochastic Domain Decomposition via Moment Minimization. <i>SIAM Journal of Scientific Computing</i> , <b>2018</b> , 40, A2152-A2173	2.6	3



307	A probabilistic framework for multidisciplinary design: Application to the hydrostructural optimization of supercavitating hydrofoils. <i>International Journal for Numerical Methods in Engineering</i> , <b>2018</b> , 116, 246-269	2.4	5
306	Understanding the Twisted Structure of Amyloid Fibrils via Molecular Simulations. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 11302-11310	3.4	4
305	Improving SWATH Seakeeping Performance using Multi-Fidelity Gaussian Process and Bayesian Optimization. <i>Journal of Ship Research</i> , <b>2018</b> , 62, 223-240	0.9	16
304	A dissipative particle dynamics method for arbitrarily complex geometries. <i>Journal of Computational Physics</i> , <b>2018</b> , 355, 534-547	4.1	50
303	Multiscale Modeling of Diseases: Overview <b>2018</b> , 1-10		
302	A Riesz Basis Galerkin Method for the Tempered Fractional Laplacian. <i>SIAM Journal on Numerical Analysis</i> , <b>2018</b> , 56, 3010-3039	2.4	16
301	A New Class of Semi-Implicit Methods with Linear Complexity for Nonlinear Fractional Differential Equations. <i>SIAM Journal of Scientific Computing</i> , <b>2018</b> , 40, A2986-A3011	2.6	16
300	Quantifying Platelet Margination in Diabetic Blood Flow. <i>Biophysical Journal</i> , <b>2018</b> , 115, 1371-1382	2.9	27
299	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> , <b>2018</b> , 115, 9574-9579	11.5	52
298	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> , <b>2018</b> , 115, 9473-9478	11.5	31
297	A partitioned coupling framework for peridynamics and classical theory: Analysis and simulations. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2018</b> , 340, 905-931	5.7	21
296	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> , <b>2018</b> , 26-27, 96-99	2.1	2
295	A tunable finite difference method for fractional differential equations with non-smooth solutions. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2017</b> , 318, 193-214	5.7	24
294	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> , <b>2017</b> , 146, 014104	3.9	51
293	Anisotropic single-particle dissipative particle dynamics model. <i>Journal of Computational Physics</i> , <b>2017</b> , 336, 481-491	4.1	3
292	A Generalized Spectral Collocation Method with Tunable Accuracy for Fractional Differential Equations with End-Point Singularities. <i>SIAM Journal of Scientific Computing</i> , <b>2017</b> , 39, A360-A383	2.6	45
291	Fractional Burgers equation with nonlinear non-locality: Spectral vanishing viscosity and local discontinuous Galerkin methods. <i>Journal of Computational Physics</i> , <b>2017</b> , 336, 143-163	4.1	13
290	Inferring solutions of differential equations using noisy multi-fidelity data. <i>Journal of Computational Physics</i> , <b>2017</b> , 335, 736-746	4.1	122

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