Zhen-Nan Zhou

List of Publications by Year
in descending order

27 papers	314 citations	933447 10 h-index	888059 17 g-index
27 all docs	27 docs citations	27 times ranked	339 citing authors

#	Article	IF	Citations
1	Rigorous Justification of the Fokker–Planck Equations of Neural Networks Based on an Iteration Perspective. SIAM Journal on Mathematical Analysis, 2022, 54, 1270-1312.	1.9	4
2	A Unified Structure Preserving Scheme for a Multispecies Model with a Gradient Flow Structure and Nonlocal Interactions via Singular Kernels. SIAM Journal of Scientific Computing, 2021, 43, B539-B569.	2.8	1
3	Dimeric Cycloparaphenylenes with a Rigid Aromatic Linker. Angewandte Chemie - International Edition, 2021, 60, 7649-7653.	13.8	47
4	Efficient sampling of thermal averages of interacting quantum particle systems with random batches. Journal of Chemical Physics, 2021, 154, 204106.	3.0	5
5	A structure preserving numerical scheme for Fokker-Planck equations of neuron networks: Numerical analysis and exploration. Journal of Computational Physics, 2021, 433, 110195.	3.8	10
6	Toward Understanding the Boundary Propagation Speeds in Tumor Growth Models. SIAM Journal on Applied Mathematics, 2021, 81, 1052-1076.	1.8	3
7	Gaussian wave packet transform based numerical scheme for the semi-classical SchrÃ¶dinger equation with random inputs. Journal of Computational Physics, 2020, 401, 109015.	3.8	3
8	Second-order semi-implicit projection methods for micromagnetics simulations. Journal of Computational Physics, 2020, 404, 109104.	3.8	15
9	Continuum limit and preconditioned Langevin sampling of the path integral molecular dynamics. Journal of Computational Physics, 2020, 423, 109788.	3.8	1
10	The Bayesian inversion problem for thermal average sampling of quantum systems. Journal of Computational Physics, 2020, 413, 109448.	3.8	1
11	Data clustering based on Langevin annealing with a self-consistent potential. Quarterly of Applied Mathematics, 2019, 77, 591-613.	0.7	11
12	An Exploratory Radiomics Approach to Quantifying Pulmonary Function in CT Images. Scientific Reports, 2019, 9, 11509.	3.3	30
13	Association of pre-treatment radiomic features with lung cancer recurrence following stereotactic body radiation therapy. Physics in Medicine and Biology, 2019, 64, 025007.	3.0	41
14	Analysis and computation of some tumor growth models with nutrient: From cell density models to free boundary dynamics. Discrete and Continuous Dynamical Systems - Series B, 2019, 24, 3011-3035.	0.9	5
15	An accurate front capturing scheme for tumor growth models with a free boundary limit. Journal of Computational Physics, 2018, 364, 73-94.	3.8	17
16	Accelerated sampling by infinite swapping of path integral molecular dynamics with surface hopping. Journal of Chemical Physics, 2018, 148, 064110.	3.0	5
17	Explicit and Implicit TVD Schemes for Conservation Laws with Caputo Derivatives. Journal of Scientific Computing, 2017, 72, 291-313.	2.3	10
18	Path integral molecular dynamics with surface hopping for thermal equilibrium sampling of nonadiabatic systems. Journal of Chemical Physics, 2017, 146, 154110.	3.0	18

#	Article	IF	Citations
19	An improved semi-Lagrangian time splitting spectral method for the semi-classical SchrÃ¶dinger equation with vector potentials using NUFFT. Applied Numerical Mathematics, 2017, 111, 144-159.	2.1	6
20	Positivity-preserving and asymptotic preserving method for 2D Keller-Segal equations. Mathematics of Computation, 2017, 87, 1165-1189.	2.1	32
21	Frozen Gaussian approximation with surface hopping for mixed quantum-classical dynamics: A mathematical justification of fewest switches surface hopping algorithms. Mathematics of Computation, 2017, 87, 2189-2232.	2.1	12
22	On a SchrÃ¶dinger--Landau--Lifshitz System: Variational Structure and Numerical Methods. Multiscale Modeling and Simulation, 2016, 14, 1463-1487.	1.6	8
23	Improved sampling and validation of frozen Gaussian approximation with surface hopping algorithm for nonadiabatic dynamics. Journal of Chemical Physics, 2016, 145, 124109.	3.0	11
24	Numerical approximation of the SchrÃ¶dinger equation with the electromagnetic field by the Hagedorn wave packets. Journal of Computational Physics, 2014, 272, 386-407.	3.8	6
25	A semi-Lagrangian time splitting method for the SchrÃ¶dinger equation with vector potentials. Communications in Information and Systems, 2013, 13, 247-289.	0.5	11
26	Approximation of the Shannon Capacity Via Matrix Cone Programming. Journal of the Operations Research Society of China, 0, , 1.	1.4	0
27	A novel spectral method for the semiclassical SchrÃ¶dinger equation based on the Gaussian wave-packet transform. IMA Journal of Numerical Analysis, 0, , .	2.9	1