Tao Zhou

List of Publications by Year
in descending order

51 papers	1,166 citations	331538 21 h-index	434063 31 g-index
51 all docs	51 docs citations	51 times ranked	557 citing authors

#	Article	IF	Citations
1	A well-conditioned direct PinT algorithm for first- and second-order evolutionary equations. Advances in Computational Mathematics, 2022, 48, 1.	0.8	2
2	Normalizing field flows: Solving forward and inverse stochastic differential equations using physics-informed flow models. Journal of Computational Physics, 2022, 461, 111202.	1.9	15
3	Analysis of the second-order BDF scheme with variable steps for the molecular beam epitaxial model without slope selection. Science China Mathematics, 2021, 64, 887-902.	0.8	27
4	Optimal design for kernel interpolation: Applications to uncertainty quantification. Journal of Computational Physics, 2021, 430, 110094.	1.9	4
5	Stein variational gradient descent with local approximations. Computer Methods in Applied Mechanics and Engineering, 2021, 386, 114087.	3.4	4
6	An Energy Stable and Maximum Bound Preserving Scheme with Variable Time Steps for Time Fractional Allen--Cahn Equation. SIAM Journal of Scientific Computing, 2021, 43, A3503-A3526.	1.3	39
7	On Energy Stable, Maximum-Principle Preserving, Second-Order BDF Scheme with Variable Steps for the Allen--Cahn Equation. SIAM Journal on Numerical Analysis, 2020, 58, 2294-2314.	1.1	54
8	A Unified Probabilistic Discretization Scheme for FBSDEs: Stability, Consistency, and Convergence Analysis. SIAM Journal on Numerical Analysis, 2020, 58, 2351-2375.	1.1	6
9	An Efficient Numerical Algorithm for Solving Data Driven Feedback Control Problems. Journal of Scientific Computing, 2020, 85, 1.	1.1	10
10	Constructing Least-Squares Polynomial Approximations. SIAM Review, 2020, 62, 483-508.	4.2	27
11	A second-order and nonuniform time-stepping maximum-principle preserving scheme for time-fractional Allen-Cahn equations. Journal of Computational Physics, 2020, 414, 109473.	1.9	89
12	Rational Spectral Methods for PDEs Involving Fractional Laplacian in Unbounded Domains. SIAM Journal of Scientific Computing, 2020, 42, A585-A611.	1.3	35
13	Diagonalization-based parallel-in-time algorithms for parabolic PDE-constrained optimization problems. ESAIM - Control, Optimisation and Calculus of Variations, 2020, 26, 88.	0.7	1
14	Explicit Deferred Correction Methods for Second-Order Forward Backward Stochastic Differential Equations. Journal of Scientific Computing, 2019, 79, 1409-1432.	1.1	6
15	Data-driven polynomial chaos expansions: A weighted least-square approximation. Journal of Computational Physics, 2019, 381, 129-145.	1.9	17
16	Adaptive multi-fidelity polynomial chaos approach to Bayesian inference in inverse problems. Journal of Computational Physics, 2019, 381, 110-128.	1.9	63
17	Efficient Stochastic Galerkin Methods for Maxwellâ€™s Equations with Random Inputs. Journal of Scientific Computing, 2019, 80, 248-267.	1.1	6
18	On Energy Dissipation Theory and Numerical Stability for Time-Fractional Phase-Field Equations. SIAM Journal of Scientific Computing, 2019, 41, A3757-A3778.	1.3	90

#	Article	IF	Citations
19	Acceleration of the Two-Level MGRIT Algorithm via the Diagonalization Technique. SIAM Journal of Scientific Computing, 2019, 41, A3421-A3448.	1.3	8
20	AN ADAPTIVE MULTIFIDELITY PC-BASED ENSEMBLE KALMAN INVERSION FOR INVERSE PROBLEMS. , 2019, 9, 205-220.		11
21	A gradient enhanced â„“1-minimization for sparse approximation of polynomial chaos expansions. Journal of Computational Physics, 2018, 367, 49-64.	1.9	32
22	Solving timeâ€periodic fractional diffusion equations via diagonalization technique and multigrid. Numerical Linear Algebra With Applications, 2018, 25, e2178.	0.9	14
23	Parareal algorithms with local time-integrators for time fractional differential equations. Journal of Computational Physics, 2018, 358, 135-149.	1.9	22
24	Weighted Approximate Fekete Points: Sampling for Least-Squares Polynomial Approximation. SIAM Journal of Scientific Computing, 2018, 40, A366-A387.	1.3	21
25	Explicit theta-Schemes for Mean-Field Backward Stochastic Differential Equations. SIAM Journal on Numerical Analysis, 2018, 56, 2672-2697.	1.1	11
26	Hermite Spectral Collocation Methods for Fractional PDEs in Unbounded Domains. Communications in Computational Physics, 2018, 24, .	0.7	26
27	A Gradient-Enhanced L1 Approach for the Recovery of Sparse Trigonometric Polynomials. Communications in Computational Physics, 2018, 24, .	0.7	3
28	High Order Numerical Schemes for Second-Order FBSDEs with Applications to Stochastic Optimal Control. Communications in Computational Physics, 2017, 21, 808-834.	0.7	17
29	Deferred Correction Methods for Forward Backward Stochastic Differential Equations. Numerical Mathematics, 2017, 10, 222-242.	0.6	15
30	Stochastic Collocation Methods via ell_1 Minimization Using Randomized Quadratures. SIAM Journal of Scientific Computing, 2017, 39, A333-A359.	1.3	13
31	A Generalized Sampling and Preconditioning Scheme for Sparse Approximation of Polynomial Chaos Expansions. SIAM Journal of Scientific Computing, 2017, 39, A1114-A1144.	1.3	47
32	An Efficient Gradient Projection Method for Stochastic Optimal Control Problems. SIAM Journal on Numerical Analysis, 2017, 55, 2982-3005.	1.1	17
33	Fast parareal iterations for fractional diffusion equations. Journal of Computational Physics, 2017, 329, 210-226.	1.9	24
34	Efficient spectral sparse grid approximations for solving multi-dimensional forward backward SDEs. Discrete and Continuous Dynamical Systems - Series B, 2017, 22, 3439-3458.	0.5	15
35	A Christoffel function weighted least squares algorithm for collocation approximations. Mathematics of Computation, 2016, 86, 1913-1947.	1.1	50
36	Multistep Schemes for Forward Backward Stochastic Differential Equations with Jumps. Journal of Scientific Computing, 2016, 69, 651-672.	1.1	14

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37	Stochastic Collocation on Unstructured Multivariate Meshes. Communications in Computational Physics, 2015, 18, 1-36.	0.7	41
38	Probabilistic High Order Numerical Schemes for Fully Nonlinear Parabolic PDEs. Communications in Computational Physics, 2015, 18, 1482-1503.	0.7	18
39	Weighted discrete least-squares polynomial approximation using randomized quadratures. Journal of Computational Physics, 2015, 298, 787-800.	1.9	23
40	Convergence Analysis for Three Parareal Solvers. SIAM Journal of Scientific Computing, 2015, 37, A970-A992.	1.3	28
41	A multilevel finite element method for Fredholm integral eigenvalue problems. Journal of Computational Physics, 2015, 303, 173-184.	1.9	7
42	ä¸¡®å®šæ€§é‡åŒ–çš„é«˜ç²¾åº¦æ•°å€¼æ–¹æ³•åŒç©ºé®º. Scientia Sinica Mathematica, 2015, 45, 891-928.	0.1	17
43	On Discrete Least-Squares Projection in Unbounded Domain with Random Evaluations and its Application to Parametric Uncertainty Quantification. SIAM Journal of Scientific Computing, 2014, 36, A2272-A2295.	1.3	25
44	On Sparse Interpolation and the Design of Deterministic Interpolation Points. SIAM Journal of Scientific Computing, 2014, 36, A1752-A1769.	1.3	27
45	New Kinds of High-Order Multistep Schemes for Coupled Forward Backward Stochastic Differential Equations. SIAM Journal of Scientific Computing, 2014, 36, A1731-A1751.	1.3	55
46	Multivariate Discrete Least-Squares Approximations with a New Type of Collocation Grid. SIAM Journal of Scientific Computing, 2014, 36, A2401-A2422.	1.3	22
47	On the Choice of Design Points for Least Square Polynomial Approximations with Application to Uncertainty Quantification. Communications in Computational Physics, 2014, 16, 365-381.	0.7	17
48	A Stochastic Collocation Method for Delay Differential Equations with Random Input. Advances in Applied Mathematics and Mechanics, 2014, 6, 403-418.	0.7	5
49	Galerkin Methods for Stochastic Hyperbolic Problems Using Bi-Orthogonal Polynomials. Journal of Scientific Computing, 2012, 51, 274-292.	1.1	16
50	Stochastic Galerkin methods for elliptic interface problems with random input. Journal of Computational and Applied Mathematics, 2011, 236, 782-792.	1.1	9
51	Note on coefficient matrices from stochastic Galerkin methods for random diffusion equations. Journal of Computational Physics, 2010, 229, 8225-8230.	1.9	1