Molei Tao

List of Publications by Year
in descending order

13 papers	**261** citations	1307594 **7** h-index	1281871 **11** g-index
13 all docs	**13** docs citations	**13** times ranked	**218** citing authors

#	Article	IF	Citations
1	Accurate and efficient simulations of Hamiltonian mechanical systems with discontinuous potentials. Journal of Computational Physics, 2022, 450, 110846.	3.8	2
2	Parametric Resonance for Enhancing the Rate of Metastable Transition. SIAM Journal on Applied Mathematics, 2022, 82, 1068-1090.	1.8	0
3	A Derivative-Free Optimization Method With Application to Functions With Exploding and Vanishing Gradients. , 2021, 5, 587-592.		12
4	Dynamic mode decomposition for multiscale nonlinear physics. Physical Review E, 2019, 99, 063311.	2.1	24
5	Metastable transitions in inertial Langevin systems: What can be different from the overdamped case?. European Journal of Applied Mathematics, 2019, 30, 830-852.	2.9	2
6	Simply improved averaging for coupled oscillators and weakly nonlinear waves. Communications in Nonlinear Science and Numerical Simulation, 2019, 71, 1-21.	3.3	7
7	Space-time phononic crystals with anomalous topological edge states. Physical Review Research, 2019, 1, .	3.6	18
8	Analysis and Design of Capacitive Parametric Ultrasonic Transducers for Efficient Ultrasonic Power Transfer Based on a 1-D Lumped Model. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 2103-2112.	3.0	14
9	Explicit high-order symplectic integrators for charged particles in general electromagnetic fields. Journal of Computational Physics, 2016, 327, 245-251.	3.8	43
10	Explicit symplectic approximation of nonseparable Hamiltonians: Algorithm and long time performance. Physical Review E, 2016, 94, 043303.	2.1	59
11	Temporal Homogenization of Linear ODEs, with Applications to Parametric Super-Resonance and Energy Harvest. Archive for Rational Mechanics and Analysis, 2016, 220, 261-296.	2.4	5
12	From Efficient Symplectic Exponentiation of Matrices to Symplectic Integration of High-dimensional Hamiltonian Systems with Slowly Varying Quadratic Stiff Potentials. Applied Mathematics Research EXpress, 2011, 2011, 242-280.	1.0	9
13	Nonintrusive and Structure Preserving Multiscale Integration of Stiff ODEs, SDEs, and Hamiltonian Systems with Hidden Slow Dynamics via Flow Averaging. Multiscale Modeling and Simulation, 2010, 8, 1269-1324.	1.6	66