

# Guangye Chen

## List of Publications by Year in descending order

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23  
papers

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citations

687363

13  
h-index

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g-index

26  
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26  
docs citations

26  
times ranked

450  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of Vector Particle-In-Cell (VPIC) memory usage optimizations on cutting-edge computer architectures. <i>Journal of Computational Science</i> , 2022, 60, 101566.	2.9	3
2	Fast nonlinear iterative solver for an implicit, energy-conserving, asymptotic-preserving charged-particle orbit integrator. <i>Journal of Computational Physics</i> , 2022, 459, 111146.	3.8	4
3	Optimize Memory Usage in Vector Particle-In-Cell (VPIC) to Break the 10 Trillion Particle Barrier in Plasma Simulations. <i>Lecture Notes in Computer Science</i> , 2021, , 452-465.	1.3	0
4	Particle integrator for particle-in-cell simulations of ultra-high intensity laser-plasma interactions. <i>Journal of Computational Physics</i> , 2021, 434, 110233.	3.8	8
5	An unsupervised machine-learning checkpoint-restart algorithm using Gaussian mixtures for particle-in-cell simulations. <i>Journal of Computational Physics</i> , 2021, 436, 110185.	3.8	7
6	Enabling particle applications for exascale computing platforms. <i>International Journal of High Performance Computing Applications</i> , 2021, 35, 572-597.	3.7	15
7	A semi-implicit, energy- and charge-conserving particle-in-cell algorithm for the relativistic Vlasov-Maxwell equations. <i>Journal of Computational Physics</i> , 2020, 407, 109228.	3.8	21
8	Energy-conserving perfect-conductor boundary conditions for an implicit, curvilinear Darwin particle-in-cell algorithm. <i>Journal of Computational Physics</i> , 2019, 391, 216-225.	3.8	6
9	A multigroup moment-accelerated deterministic particle solver for 1-D time-dependent thermal radiative transfer problems. <i>Journal of Computational Physics</i> , 2019, 388, 416-438.	3.8	11
10	A fully implicit, conservative, non-linear, electromagnetic hybrid particle-ion/fluid-electron algorithm. <i>Journal of Computational Physics</i> , 2019, 376, 597-616.	3.8	19
11	Multiscale high-order/low-order (HOLO) algorithms and applications. <i>Journal of Computational Physics</i> , 2017, 330, 21-45.	3.8	37
12	Criterion for correctly simulating relativistic electron motion in a high-intensity laser field. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	2
13	A curvilinear, fully implicit, conservative electromagnetic PIC algorithm in multiple dimensions. <i>Journal of Computational Physics</i> , 2016, 316, 578-597.	3.8	36
14	Temporal resolution criterion for correctly simulating relativistic electron motion in a high-intensity laser field. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	44
15	A multi-dimensional, energy- and charge-conserving, nonlinearly implicit, electromagnetic Vlasov-Darwin particle-in-cell algorithm. <i>Computer Physics Communications</i> , 2015, 197, 73-87.	7.5	65
16	Computational Co-design of a Multiscale Plasma Application: A Process and Initial Results. , 2014, , .		1
17	An energy- and charge-conserving, nonlinearly implicit, electromagnetic 1D-3V Vlasov-Darwin particle-in-cell algorithm. <i>Computer Physics Communications</i> , 2014, 185, 2391-2402.	7.5	44
18	Fluid preconditioning for Newton-Krylov-based, fully implicit, electrostatic particle-in-cell simulations. <i>Journal of Computational Physics</i> , 2014, 258, 555-567.	3.8	28

#	ARTICLE	IF	CITATIONS
19	Development of a Consistent and Stable Fully Implicit Moment Method for Vlasov-Ampère Particle in Cell (PIC) System. SIAM Journal of Scientific Computing, 2013, 35, S126-S149.	2.8	29
20	An analytical particle mover for the charge- and energy-conserving, nonlinearly implicit, electrostatic particle-in-cell algorithm. Journal of Computational Physics, 2013, 247, 79-87.	3.8	5
21	A charge- and energy-conserving implicit, electrostatic particle-in-cell algorithm on mapped computational meshes. Journal of Computational Physics, 2013, 233, 1-9.	3.8	82
22	An efficient mixed-precision, hybrid CPU-GPU implementation of a nonlinearly implicit one-dimensional particle-in-cell algorithm. Journal of Computational Physics, 2012, 231, 5374-5388.	3.8	43
23	An energy- and charge-conserving, implicit, electrostatic particle-in-cell algorithm. Journal of Computational Physics, 2011, 230, 7018-7036.	3.8	188