

# Elbridge Gerry Puckett

## List of Publications by Year in descending order

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Version: 2024-02-01

21  
papers

2,679  
citations

933447

10  
h-index

839539

18  
g-index

22  
all docs

22  
docs citations

22  
times ranked

1726  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Coupled Level Set and Volume-of-Fluid Method for Computing 3D and Axisymmetric Incompressible Two-Phase Flows. <i>Journal of Computational Physics</i> , 2000, 162, 301-337.	3.8	1,317
2	Second-order accurate volume-of-fluid algorithms for tracking material interfaces. <i>Journal of Computational Physics</i> , 2004, 199, 465-502.	3.8	519
3	A High-Order Projection Method for Tracking Fluid Interfaces in Variable Density Incompressible Flows. <i>Journal of Computational Physics</i> , 1997, 130, 269-282.	3.8	418
4	A High-Order Godunov Method for Multiple Condensed Phases. <i>Journal of Computational Physics</i> , 1996, 128, 134-164.	3.8	176
5	A 3D adaptive mesh refinement algorithm for multimaterial gas dynamics. <i>Physica D: Nonlinear Phenomena</i> , 1992, 60, 84-93.	2.8	45
6	Flexible and Scalable Particle-in-Cell Methods With Adaptive Mesh Refinement for Geodynamic Computations. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 3596-3604.	2.5	34
7	Vortex Methods: An Introduction and Survey of Selected Research Topics. , 1993, , 335-408.		28
8	A Study of the Vortex Sheet Method and its Rate of Convergence. <i>SIAM Journal on Scientific and Statistical Computing</i> , 1989, 10, 298-327.	1.5	24
9	A discontinuous Galerkin method with a bound preserving limiter for the advection of non-diffusive fields in solid Earth geodynamics. <i>Physics of the Earth and Planetary Interiors</i> , 2017, 263, 23-37.	1.9	20
10	Supply-demand Diagrams and a New Framework for Analyzing the Inhomogeneous Lighthill-Whitham-Richards Model. , 2009, , 603-635.		20
11	Convergence of a random particle method to solutions of the Kolmogorov equation $\partial_t u + u \partial_x u = \frac{1}{2} \partial_{xx} u$ . <i>Mathematics of Computation</i> , 1989, 52, 615-615.	2.1	18
12	Edge effects in molybdenum-encapsulated molten silicate shock wave targets. <i>Journal of Applied Physics</i> , 1994, 75, 1426-1434.	2.5	12
13	Evaluating the accuracy of hybrid finite element/particle-in-cell methods for modelling incompressible Stokes flow. <i>Geophysical Journal International</i> , 2019, 219, 1915-1938.	2.4	11
14	New numerical approaches for modeling thermochemical convection in a compositionally stratified fluid. <i>Physics of the Earth and Planetary Interiors</i> , 2018, 276, 10-35.	1.9	10
15	A fast vortex method for computing 2D viscous flow. <i>Journal of Computational Physics</i> , 1990, 91, 278-297.	3.8	8
16	Implementation of a Volume-of-Fluid method in a finite element code with applications to thermochemical convection in a density stratified fluid in the Earth's mantle. <i>Computers and Fluids</i> , 2019, 190, 217-253.	2.5	8
17	Convergence of a Random Particle Method to Solutions of the Kolmogorov Equation $\partial_t u + u \partial_x u = \frac{1}{2} \partial_{xx} u$ . <i>Mathematics of Computation</i> , 1989, 52, 615-615.	2.1	18
18	A Neumann preconditioned iterative substructuring approach for computing solutions to Poisson's equation with prescribed jumps on an embedded boundary. <i>Journal of Computational Physics</i> , 2013, 235, 683-700.	3.8	2

#	ARTICLE	IF	CITATIONS
19	The refraction of shock pairs. <i>Shock Waves</i> , 2014, 24, 553-572.	1.9	2
20	A Numerical Study of Shock Wave Refraction at a CO <sub>2</sub> /CH <sub>4</sub> Interface. <i>The IMA Volumes in Mathematics and Its Applications</i> , 1991, , 261-280.	0.5	2
21	An Ising model approach to the behavior of the Earth's magnetic field: A progress report. <i>Surveys in Geophysics</i> , 1996, 17, 225-228.	4.6	0