

Hector D Cenicerros

List of Publications by Year in descending order

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47
papers

1,923
citations

331670

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243625

44
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all docs

49
docs citations

49
times ranked

1724
citing authors

#	ARTICLE	IF	CITATIONS
1	Computation of multiphase systems with phase field models. <i>Journal of Computational Physics</i> , 2003, 190, 371-397.	3.8	511
2	Numerical Solution of Polymer Self-Consistent Field Theory. <i>Multiscale Modeling and Simulation</i> , 2004, 2, 452-474.	1.6	156
3	An Efficient Dynamically Adaptive Mesh for Potentially Singular Solutions. <i>Journal of Computational Physics</i> , 2001, 172, 609-639.	3.8	136
4	Coalescence of two equal-sized deformable drops in an axisymmetric flow. <i>Physics of Fluids</i> , 2007, 19, .	4.0	103
5	Block Copolymer Self Assembly during Rapid Solvent Evaporation: Insights into Cylinder Growth and Stability. <i>ACS Macro Letters</i> , 2014, 3, 16-20.	4.8	86
6	A supra-convergent finite difference scheme for the variable coefficient Poisson equation on non-graded grids. <i>Journal of Computational Physics</i> , 2006, 218, 123-140.	3.8	69
7	Self-consistent field theory simulations of block copolymer assembly on a sphere. <i>Physical Review E</i> , 2007, 75, 031802.	2.1	67
8	Three-dimensional, fully adaptive simulations of phase-field fluid models. <i>Journal of Computational Physics</i> , 2010, 229, 6135-6155.	3.8	56
9	A multi-fluid model for microstructure formation in polymer membranes. <i>Soft Matter</i> , 2017, 13, 3013-3030.	2.7	53
10	Numerical Solutions of the Complex Langevin Equations in Polymer Field Theory. <i>Multiscale Modeling and Simulation</i> , 2008, 6, 1347-1370.	1.6	52
11	The effects of surfactants on the formation and evolution of capillary waves. <i>Physics of Fluids</i> , 2003, 15, 245-256.	4.0	50
12	A nonstiff, adaptive mesh refinement-based method for the Cahn-Hilliard equation. <i>Journal of Computational Physics</i> , 2007, 225, 1849-1862.	3.8	42
13	Numerical study of Hele-Shaw flow with suction. <i>Physics of Fluids</i> , 1999, 11, 2471-2486.	4.0	39
14	Field-induced control of ferrofluid emulsion rheology and droplet break-up in shear flows. <i>Physics of Fluids</i> , 2018, 30, 122110.	4.0	30
15	Convergence of a non-stiff boundary integral method for interfacial flows with surface tension. <i>Mathematics of Computation</i> , 1998, 67, 137-182.	2.1	30
16	Spectral collocation methods for polymer brushes. <i>Journal of Chemical Physics</i> , 2011, 134, 244905.	3.0	29
17	Comparison of Pseudospectral Algorithms for Field-Theoretic Simulations of Polymers. <i>Macromolecules</i> , 2013, 46, 8383-8391.	4.8	28
18	A Robust, Fully Adaptive Hybrid Level-set/front-tracking Method for Two-phase Flows with an Accurate Surface Tension Computation. <i>Communications in Computational Physics</i> , 2010, 8, 51-94.	1.7	28

#	ARTICLE	IF	CITATIONS
19	Efficient solutions to robust, semi-implicit discretizations of the immersed boundary method. <i>Journal of Computational Physics</i> , 2009, 228, 7137-7158.	3.8	25
20	A numerical study of the semi-classical limit of the focusing nonlinear Schrödinger equation. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2002, 306, 25-34.	2.1	24
21	Dynamic generation of capillary waves. <i>Physics of Fluids</i> , 1999, 11, 1042-1050.	4.0	23
22	Ericksen number and Deborah number cascade predictions of a model for liquid crystalline polymers for simple shear flow. <i>Physics of Fluids</i> , 2007, 19, 023101.	4.0	21
23	Cyclic Solvent Annealing Improves Feature Orientation in Block Copolymer Thin Films. <i>Macromolecules</i> , 2016, 49, 1743-1751.	4.8	21
24	Study of the long-time dynamics of a viscous vortex sheet with a fully adaptive nonstiff method. <i>Physics of Fluids</i> , 2004, 16, 4285-4318.	4.0	20
25	A semi-implicit moving mesh method for the focusing nonlinear Schrödinger equation. <i>Communications on Pure and Applied Analysis</i> , 2002, 1, 1-18.	0.8	19
26	The singular perturbation of surface tension in Hele-Shaw flows. <i>Journal of Fluid Mechanics</i> , 2000, 409, 251-272.	3.4	18
27	Deep learning and self-consistent field theory: A path towards accelerating polymer phase discovery. <i>Journal of Computational Physics</i> , 2021, 443, 110519.	3.8	17
28	Three-dimensional shear-driven dynamics of polydomain textures and disclination loops in liquid crystalline polymers. <i>Journal of Rheology</i> , 2008, 52, 837-863.	2.6	16
29	A new approach for the numerical solution of diffusion equations with variable and degenerate mobility. <i>Journal of Computational Physics</i> , 2013, 246, 1-10.	3.8	16
30	Numerical study of an inextensible, finite swimmer in Stokesian viscoelastic flow. <i>Physics of Fluids</i> , 2016, 28, .	4.0	16
31	A multi-phase flow method with a fast, geometry-based fluid indicator. <i>Journal of Computational Physics</i> , 2005, 205, 391-400.	3.8	15
32	A fast, robust, and non-stiff Immersed Boundary Method. <i>Journal of Computational Physics</i> , 2011, 230, 5133-5153.	3.8	13
33	Computation of Axisymmetric Suction Flow through Porous Media in the Presence of Surface Tension. <i>Journal of Computational Physics</i> , 2000, 165, 237-260.	3.8	12
34	Deformation of a Sheared Magnetic Droplet in a Viscous Fluid. <i>Communications in Computational Physics</i> , 2018, 24, .	1.7	11
35	A Practical Splitting Method for Stiff SDEs with Applications to Problems with Small Noise. <i>Multiscale Modeling and Simulation</i> , 2007, 6, 212-227.	1.6	10
36	Peristaltic pumping of a viscoelastic fluid at high occlusion ratios and large Weissenberg numbers. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2012, 171-172, 31-41.	2.4	10

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37	Ordering kinetics of a conserved binary mixture with a nematic liquid crystal component. Journal of Non-Newtonian Fluid Mechanics, 2014, 212, 18-27.	2.4	9
38	Three-dimensional coarsening dynamics of a conserved, nematic liquid crystal-isotropic fluid mixture. Journal of Non-Newtonian Fluid Mechanics, 2017, 248, 62-73.	2.4	9
39	High order quadratures for the evaluation of interfacial velocities in axi-symmetric Stokes flows. Journal of Computational Physics, 2010, 229, 6318-6342.	3.8	8
40	Fast algorithms for spectral collocation with non-periodic boundary conditions. Journal of Computational Physics, 2005, 207, 173-191.	3.8	7
41	Gravitational Effects on Structure Development in Quenched Complex Fluids. Annals of the New York Academy of Sciences, 2004, 1027, 371-382.	3.8	6
42	Coupled flow-polymer dynamics via statistical field theory: Modeling and computation. Journal of Computational Physics, 2009, 228, 1624-1638.	3.8	6
43	Efficient order-adaptive methods for polymer self-consistent field theory. Journal of Computational Physics, 2019, 386, 9-21.	3.8	3
44	On minimal energy dipole moment distributions in regular polygonal agglomerates. Journal of Magnetism and Magnetic Materials, 2017, 421, 269-282.	2.3	2
45	Topological reconfiguration in expanding Hele-Shaw flow. Journal of Turbulence, 2002, 3, N37.	1.4	1
46	A continuum model for the jumping sandbox. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 249, 191-198.	2.1	0
47	Kernel Treelets. Advances in Data Science and Adaptive Analysis, 2019, 11, 1950006.	0.4	0