

Hector D Cenicerros

List of Publications by Year in descending order

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47
papers

1,923
citations

331670

21
h-index

243625

44
g-index

49
all docs

49
docs citations

49
times ranked

1724
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Efficient order-adaptive methods for polymer self-consistent field theory. <i>Journal of Computational Physics</i> , 2019, 386, 9-21.	3.8	3
3	Kernel Treelets. <i>Advances in Data Science and Adaptive Analysis</i> , 2019, 11, 1950006.	0.4	0
4	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
5	Deformation of a Sheared Magnetic Droplet in a Viscous Fluid. <i>Communications in Computational Physics</i> , 2018, 24, .	1.7	11
6	A multi-fluid model for microstructure formation in polymer membranes. <i>Soft Matter</i> , 2017, 13, 3013-3030.	2.7	53
7	Three-dimensional coarsening dynamics of a conserved, nematic liquid crystal-isotropic fluid mixture. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2017, 248, 62-73.	2.4	9
8	On minimal energy dipole moment distributions in regular polygonal agglomerates. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 421, 269-282.	2.3	2
9	Numerical study of an inextensible, finite swimmer in Stokesian viscoelastic flow. <i>Physics of Fluids</i> , 2016, 28, .	4.0	16
10	Cyclic Solvent Annealing Improves Feature Orientation in Block Copolymer Thin Films. <i>Macromolecules</i> , 2016, 49, 1743-1751.	4.8	21
11	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
12	Ordering kinetics of a conserved binary mixture with a nematic liquid crystal component. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2014, 212, 18-27.	2.4	9
13	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
14	Comparison of Pseudospectral Algorithms for Field-Theoretic Simulations of Polymers. <i>Macromolecules</i> , 2013, 46, 8383-8391.	4.8	28
15	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
16	Spectral collocation methods for polymer brushes. <i>Journal of Chemical Physics</i> , 2011, 134, 244905.	3.0	29
17	A fast, robust, and non-stiff Immersed Boundary Method. <i>Journal of Computational Physics</i> , 2011, 230, 5133-5153.	3.8	13
18	High order quadratures for the evaluation of interfacial velocities in axi-symmetric Stokes flows. <i>Journal of Computational Physics</i> , 2010, 229, 6318-6342.	3.8	8

#	ARTICLE	IF	CITATIONS
19	Three-dimensional, fully adaptive simulations of phase-field fluid models. Journal of Computational Physics, 2010, 229, 6135-6155.	3.8	56
20	A Robust, Fully Adaptive Hybrid Level-set/front-tracking Method for Two-phase Flows with an Accurate Surface Tension Computation. Communications in Computational Physics, 2010, 8, 51-94.	1.7	28
21	Efficient solutions to robust, semi-implicit discretizations of the immersed boundary method. Journal of Computational Physics, 2009, 228, 7137-7158.	3.8	25
22	Coupled flow-polymer dynamics via statistical field theory: Modeling and computation. Journal of Computational Physics, 2009, 228, 1624-1638.	3.8	6
23	Three-dimensional shear-driven dynamics of polydomain textures and disclination loops in liquid crystalline polymers. Journal of Rheology, 2008, 52, 837-863.	2.6	16
24	Numerical Solutions of the Complex Langevin Equations in Polymer Field Theory. Multiscale Modeling and Simulation, 2008, 6, 1347-1370.	1.6	52
25	Ericksen number and Deborah number cascade predictions of a model for liquid crystalline polymers for simple shear flow. Physics of Fluids, 2007, 19, 023101.	4.0	21
26	A Practical Splitting Method for Stiff SDEs with Applications to Problems with Small Noise. Multiscale Modeling and Simulation, 2007, 6, 212-227.	1.6	10
27	Coalescence of two equal-sized deformable drops in an axisymmetric flow. Physics of Fluids, 2007, 19, .	4.0	103
28	Self-consistent field theory simulations of block copolymer assembly on a sphere. Physical Review E, 2007, 75, 031802.	2.1	67
29	A nonstiff, adaptive mesh refinement-based method for the Cahn-Hilliard equation. Journal of Computational Physics, 2007, 225, 1849-1862.	3.8	42
30	A supra-convergent finite difference scheme for the variable coefficient Poisson equation on non-graded grids. Journal of Computational Physics, 2006, 218, 123-140.	3.8	69
31	A multi-phase flow method with a fast, geometry-based fluid indicator. Journal of Computational Physics, 2005, 205, 391-400.	3.8	15
32	Fast algorithms for spectral collocation with non-periodic boundary conditions. Journal of Computational Physics, 2005, 207, 173-191.	3.8	7
33	Study of the long-time dynamics of a viscous vortex sheet with a fully adaptive nonstiff method. Physics of Fluids, 2004, 16, 4285-4318.	4.0	20
34	Gravitational Effects on Structure Development in Quenched Complex Fluids. Annals of the New York Academy of Sciences, 2004, 1027, 371-382.	3.8	6
35	Numerical Solution of Polymer Self-Consistent Field Theory. Multiscale Modeling and Simulation, 2004, 2, 452-474.	1.6	156
36	Computation of multiphase systems with phase field models. Journal of Computational Physics, 2003, 190, 371-397.	3.8	511

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37	The effects of surfactants on the formation and evolution of capillary waves. <i>Physics of Fluids</i> , 2003, 15, 245-256.	4.0	50
38	Topological reconfiguration in expanding Hele-Shaw flow. <i>Journal of Turbulence</i> , 2002, 3, N37.	1.4	1
39	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
40	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
41	An Efficient Dynamically Adaptive Mesh for Potentially Singular Solutions. <i>Journal of Computational Physics</i> , 2001, 172, 609-639.	3.8	136
42	The singular perturbation of surface tension in Hele-Shaw flows. <i>Journal of Fluid Mechanics</i> , 2000, 409, 251-272.	3.4	18
43	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
44	Numerical study of Hele-Shaw flow with suction. <i>Physics of Fluids</i> , 1999, 11, 2471-2486.	4.0	39
45	Dynamic generation of capillary waves. <i>Physics of Fluids</i> , 1999, 11, 1042-1050.	4.0	23
46	A continuum model for the jumping sandbox. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1998, 249, 191-198.	2.1	0
47	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