

Carlos J Garcia-Cervera

List of Publications by Year in descending order

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51
papers

1,458
citations

430874

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315739

38
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54
all docs

54
docs citations

54
times ranked

1568
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy conversion in Ni-Mn-Ga with asymmetrical bias magnetic field. Journal of Magnetism and Magnetic Materials, 2022, 551, 169183.	2.3	3
2	Second-order semi-implicit projection methods for micromagnetics simulations. Journal of Computational Physics, 2020, 404, 109104.	3.8	15
3	Sensitivity of twin boundary movement to sample orientation and magnetic field direction in Ni-Mn-Ga. Acta Materialia, 2020, 186, 389-395.	7.9	9
4	Magnetic domain-twin boundary interactions in Ni-Mn-Ga. Acta Materialia, 2020, 193, 221-228.	7.9	5
5	Linear Scaling Self-Consistent Field Theory with Spectral Contour Accuracy. ACS Macro Letters, 2019, 8, 1402-1406.	4.8	12
6	Optimized Phase Field Model for Diblock Copolymer Melts. Macromolecules, 2019, 52, 2878-2888.	4.8	11
7	Semiclassical Limit of the Schrödinger-Poisson-Landau-Lifshitz-Gilbert System. Archive for Rational Mechanics and Analysis, 2018, 227, 897-928.	2.4	1
8	Twin-enhanced magnetic torque. Journal of Magnetism and Magnetic Materials, 2018, 458, 183-192.	2.3	5
9	Switching Mechanism in the $B_{1\text{RevTilted}}$ Phase of Bent-Core Liquid Crystals. SIAM Journal on Mathematical Analysis, 2018, 50, 4889-4913.	1.9	3
10	Diffusion limit of the Boltzmann-Landau-Lifshitz-Gilbert system in ferromagnetic materials. Communications in Mathematical Sciences, 2018, 16, 1157-1167.	1.0	0
11	An efficient multigrid strategy for large-scale molecular mechanics optimization. Journal of Computational Physics, 2017, 342, 29-42.	3.8	3
12	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
13	Sawtooth Profile in Smectic A Liquid Crystals. SIAM Journal on Applied Mathematics, 2016, 76, 217-237.	1.8	6
14	Analysis of the Flow of Magnetoelastic Materials. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 663-664.	0.2	4
15	Cyclic Solvent Annealing Improves Feature Orientation in Block Copolymer Thin Films. Macromolecules, 2016, 49, 1743-1751.	4.8	21
16	High Order Finite Difference Discretization for Composite Grid Hierarchy and Its Applications. Communications in Computational Physics, 2015, 18, 1211-1233.	1.7	0
17	A Mean-Field Model for Spin Dynamics in Multilayered Ferromagnetic Media. Multiscale Modeling and Simulation, 2015, 13, 551-570.	1.6	10
18	Mean-Field Dynamics of the Spin-Magnetization Coupling in Ferromagnetic Materials: Application to Current-Driven Domain Wall Motions. IEEE Transactions on Magnetics, 2015, 51, 1-6.	2.1	1

#	ARTICLE	IF	CITATIONS
19	An Atomistic/Continuum Coupling Method Using Enriched Bases. Multiscale Modeling and Simulation, 2015, 13, 766-789.	1.6	3
20	Reorientation of smectic a liquid crystals by magnetic fields. Discrete and Continuous Dynamical Systems - Series B, 2015, 20, 1983-2000.	0.9	1
21	A note on 'Spin-polarized transport: Existence of weak solutions'. Discrete and Continuous Dynamical Systems - Series B, 2015, 20, 2761-2763.	0.9	1
22	Detecting small surface vibrations by passive electro-optical illumination. , 2014, , .		0
23	Block Copolymer Self Assembly during Rapid Solvent Evaporation: Insights into Cylinder Growth and Stability. ACS Macro Letters, 2014, 3, 16-20.	4.8	86
24	Effect of copper metalation of tetrabenzoporphyrin donor material on organic solar cell performance. Journal of Materials Chemistry A, 2014, 2, 7890.	10.3	19
25	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
26	Systematic study of exciton diffusion length in organic semiconductors by six experimental methods. Materials Horizons, 2014, 1, 280-285.	12.2	144
27	Analysis and simulations of the Chen-Lubensky energy for smectic liquid crystals: onset of undulations. Communications in Mathematical Sciences, 2014, 12, 1155-1183.	1.0	4
28	A new approach for the numerical solution of diffusion equations with variable and degenerate mobility. Journal of Computational Physics, 2013, 246, 1-10.	3.8	16
29	Chebyshev Collocation in Polymer Field Theory: Application to Wetting Phenomena. Macromolecules, 2012, 45, 2905-2919.	4.8	16
30	Analytic Description of Layer Undulations in Smectic A Liquid Crystals. Archive for Rational Mechanics and Analysis, 2012, 203, 1-43.	2.4	13
31	Spectral collocation methods for polymer brushes. Journal of Chemical Physics, 2011, 134, 244905.	3.0	29
32	Layer Undulations in Smectic A Liquid Crystals. Journal of Computational and Theoretical Nanoscience, 2010, 7, 795-801.	0.4	6
33	Density-gradient-corrected embedded atom method. Physical Review B, 2009, 79, .	3.2	9
34	SCFT Simulations of Thin Film Blends of Block Copolymer and Homopolymer Laterally Confined in a Square Well. Macromolecules, 2009, 42, 5861-5872.	4.8	94
35	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
36	Numerical Solutions of the Complex Langevin Equations in Polymer Field Theory. Multiscale Modeling and Simulation, 2008, 6, 1347-1370.	1.6	52

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37	Erickson 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
38	Self-consistent field theory simulations of block copolymer assembly on a sphere. <i>Physical Review E</i> , 2007, 75, 031802.	2.1	67
39	Spin-polarized currents in ferromagnetic multilayers. <i>Journal of Computational Physics</i> , 2007, 224, 699-711.	3.8	20
40	Microdomain Ordering in Laterally Confined Block Copolymer Thin Films. <i>Macromolecules</i> , 2007, 40, 9570-9581.	4.8	78
41	Spin-polarized transport: Existence of weak solutions. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2007, 7, 87-100.	0.9	13
42	Stability of the Gyroid Phase in Diblock Copolymers at Strong Segregation. <i>Macromolecules</i> , 2006, 39, 2449-2451.	4.8	333
43	Defects and their removal in block copolymer thin film simulations. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006, 44, 2495-2511.	2.1	20
44	Adaptive Mesh Refinement for Micromagnetics Simulations. <i>IEEE Transactions on Magnetics</i> , 2006, 42, 1648-1654.	2.1	24
45	Magnetic switching of ferromagnetic thin films under thermal perturbation. <i>Journal of Applied Physics</i> , 2005, 98, 023903.	2.5	1
46	Néel Walls in Low Anisotropy Symmetric Double Layers. <i>SIAM Journal on Applied Mathematics</i> , 2005, 65, 1726-1747.	1.8	4
47	Structure of the Bloch wall in multilayers. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2005, 461, 1911-1926.	2.1	4
48	One-dimensional magnetic domain walls. <i>European Journal of Applied Mathematics</i> , 2004, 15, 451-486.	2.9	29
49	Accurate numerical methods for micromagnetics simulations with general geometries. <i>Journal of Computational Physics</i> , 2003, 184, 37-52.	3.8	56
50	Improved gauss-seidel projection method for micromagnetics simulations. <i>IEEE Transactions on Magnetics</i> , 2003, 39, 1766-1770.	2.1	21
51	A Gauss-Seidel Projection Method for Micromagnetics Simulations. <i>Journal of Computational Physics</i> , 2001, 171, 357-372.	3.8	131