

Carlos J Garcia-Cervera

List of Publications by Year in descending order

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51
papers

1,458
citations

430874

18
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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	Stability of the Gyroid Phase in Diblock Copolymers at Strong Segregation. <i>Macromolecules</i> , 2006, 39, 2449-2451.	4.8	333
2	Systematic study of exciton diffusion length in organic semiconductors by six experimental methods. <i>Materials Horizons</i> , 2014, 1, 280-285.	12.2	144
3	A Gauss-Seidel Projection Method for Micromagnetics Simulations. <i>Journal of Computational Physics</i> , 2001, 171, 357-372.	3.8	131
4	SCFT Simulations of Thin Film Blends of Block Copolymer and Homopolymer Laterally Confined in a Square Well. <i>Macromolecules</i> , 2009, 42, 5861-5872.	4.8	94
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	Microdomain Ordering in Laterally Confined Block Copolymer Thin Films. <i>Macromolecules</i> , 2007, 40, 9570-9581.	4.8	78
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	Accurate numerical methods for micromagnetics simulations with general geometries. <i>Journal of Computational Physics</i> , 2003, 184, 37-52.	3.8	56
9	Numerical Solutions of the Complex Langevin Equations in Polymer Field Theory. <i>Multiscale Modeling and Simulation</i> , 2008, 6, 1347-1370.	1.6	52
10	One-dimensional magnetic domain walls. <i>European Journal of Applied Mathematics</i> , 2004, 15, 451-486.	2.9	29
11	Spectral collocation methods for polymer brushes. <i>Journal of Chemical Physics</i> , 2011, 134, 244905.	3.0	29
12	Adaptive Mesh Refinement for Micromagnetics Simulations. <i>IEEE Transactions on Magnetics</i> , 2006, 42, 1648-1654.	2.1	24
13	Improved gauss-seidel projection method for micromagnetics simulations. <i>IEEE Transactions on Magnetics</i> , 2003, 39, 1766-1770.	2.1	21
14	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
15	Cyclic Solvent Annealing Improves Feature Orientation in Block Copolymer Thin Films. <i>Macromolecules</i> , 2016, 49, 1743-1751.	4.8	21
16	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
17	Spin-polarized currents in ferromagnetic multilayers. <i>Journal of Computational Physics</i> , 2007, 224, 699-711.	3.8	20
18	Effect of copper metalation of tetrabenzoporphyrin donor material on organic solar cell performance. <i>Journal of Materials Chemistry A</i> , 2014, 2, 7890.	10.3	19

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19	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
20	Chebyshev Collocation in Polymer Field Theory: Application to Wetting Phenomena. <i>Macromolecules</i> , 2012, 45, 2905-2919.	4.8	16
21	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
22	Second-order semi-implicit projection methods for micromagnetics simulations. <i>Journal of Computational Physics</i> , 2020, 404, 109104.	3.8	15
23	Analytic Description of Layer Undulations in Smectic A Liquid Crystals. <i>Archive for Rational Mechanics and Analysis</i> , 2012, 203, 1-43.	2.4	13
24	Spin-polarized transport: Existence of weak solutions. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2007, 7, 87-100.	0.9	13
25	Linear Scaling Self-Consistent Field Theory with Spectral Contour Accuracy. <i>ACS Macro Letters</i> , 2019, 8, 1402-1406.	4.8	12
26	Optimized Phase Field Model for Diblock Copolymer Melts. <i>Macromolecules</i> , 2019, 52, 2878-2888.	4.8	11
27	A Mean-Field Model for Spin Dynamics in Multilayered Ferromagnetic Media. <i>Multiscale Modeling and Simulation</i> , 2015, 13, 551-570.	1.6	10
28	Density-gradient-corrected embedded atom method. <i>Physical Review B</i> , 2009, 79, .	3.2	9
29	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
30	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
31	Sensitivity of twin boundary movement to sample orientation and magnetic field direction in Ni-Mn-Ga. <i>Acta Materialia</i> , 2020, 186, 389-395.	7.9	9
32	Layer Undulations in Smectic A Liquid Crystals. <i>Journal of Computational and Theoretical Nanoscience</i> , 2010, 7, 795-801.	0.4	6
33	Sawtooth Profile in Smectic A Liquid Crystals. <i>SIAM Journal on Applied Mathematics</i> , 2016, 76, 217-237.	1.8	6
34	Twin-enhanced magnetic torque. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 458, 183-192.	2.3	5
35	Magnetic domain-twin boundary interactions in Ni-Mn-Ga. <i>Acta Materialia</i> , 2020, 193, 221-228.	7.9	5
36	Néel Walls in Low Anisotropy Symmetric Double Layers. <i>SIAM Journal on Applied Mathematics</i> , 2005, 65, 1726-1747.	1.8	4

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37	Structure of the Bloch wall in multilayers. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 1911-1926.	2.1	4
38	Analysis of the Flow of Magnetoelastic Materials. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 663-664.	0.2	4
39	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
40	An Atomistic/Continuum Coupling Method Using Enriched Bases. Multiscale Modeling and Simulation, 2015, 13, 766-789.	1.6	3
41	An efficient multigrid strategy for large-scale molecular mechanics optimization. Journal of Computational Physics, 2017, 342, 29-42.	3.8	3
42	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
43	Energy conversion in Ni-Mn-Ga with asymmetrical bias magnetic field. Journal of Magnetism and Magnetic Materials, 2022, 551, 169183.	2.3	3
44	Magnetic switching of ferromagnetic thin films under thermal perturbation. Journal of Applied Physics, 2005, 98, 023903.	2.5	1
45	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
46	Semiclassical Limit of the Schrödinger-Poisson-Landau-Lifshitz-Gilbert System. Archive for Rational Mechanics and Analysis, 2018, 227, 897-928.	2.4	1
47	Reorientation of smectic a liquid crystals by magnetic fields. Discrete and Continuous Dynamical Systems - Series B, 2015, 20, 1983-2000.	0.9	1
48	A note on 'Spin-polarized transport: Existence of weak solutions'. Discrete and Continuous Dynamical Systems - Series B, 2015, 20, 2761-2763.	0.9	1
49	Detecting small surface vibrations by passive electro-optical illumination. , 2014, , .		0
50	High Order Finite Difference Discretization for Composite Grid Hierarchy and Its Applications. Communications in Computational Physics, 2015, 18, 1211-1233.	1.7	0
51	Diffusion limit of the Boltzmann-Landau-Lifshitz-Gilbert system in ferromagnetic materials. Communications in Mathematical Sciences, 2018, 16, 1157-1167.	1.0	0