Ana Carpio

List of Publications by Year
in descending order

55	738	15	25
papers	citations	h-index	g-index

567144

580701

56	56	56	517
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Immersed Boundary Approach to Biofilm Spread on Surfaces. Communications in Computational Physics, 2022, 31, 257-292.	0.7	2
2	Pattern recognition in data as a diagnosis tool. Journal of Mathematics in Industry, 2022, 12, .	0.7	1
3	Uncertainty quantification in Covid-19 spread: Lockdown effects. Results in Physics, 2022, 35, 105375.	2.0	3
4	Parameter identification in epidemiological models. , 2022, , 103-124.		0
5	Processing the 2D and 3D Fresnel experimental databases via topological derivative methods. Inverse Problems, 2021, 37, 105012.	1.0	6
6	Multifrequency Topological Derivative Approach to Inverse Scattering Problems in Attenuating Media. Symmetry, 2021, 13, 1702.	1.1	2
7	Mathematical models of the spread and consequences of the SARS-CoV-2 pandemics. Journal of Mathematics in Industry, 2021, 11, 15.	0.7	1
8	Bayesian approach to inverse scattering with topological priors. Inverse Problems, 2020, 36, 105001.	1.0	9
9	Tracking collective cell motion by topological data analysis. PLoS Computational Biology, 2020, 16, e1008407.	1.5	17
10	Incorporating Cellular Stochasticity in Solid–Fluid Mixture Biofilm Models. Entropy, 2020, 22, 188.	1.1	2
11	When topological derivatives met regularized Gauss-Newton iterations in holographic 3D imaging. Journal of Computational Physics, 2019, 388, 224-251.	1.9	21
12	Biofilms as poroelastic materials. International Journal of Non-Linear Mechanics, 2019, 109, 1-8.	1.4	12
13	Optimization Methods for In-Line Holography. SIAM Journal on Imaging Sciences, 2018, 11, 923-956.	1.3	4
14	Dynamic energy budget approach to evaluate antibiotic effects on biofilms. Communications in Nonlinear Science and Numerical Simulation, 2018, 54, 70-83.	1.7	8
15	A convergent numerical scheme for integrodifferential kinetic models of angiogenesis. Journal of Computational Physics, 2018, 375, 1270-1294.	1.9	7
16	Dynamics of <i>Pseudomonas putida</i> biofilms in an upscale experimental framework. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 899-911.	1.4	7
17	Constructing solutions for a kinetic model of angiogenesis in annular domains. Applied Mathematical Modelling, 2017, 45, 303-322.	2.2	12
18	Stenosis triggers spread of helical Pseudomonas biofilms in cylindrical flow systems. Scientific Reports, 2016, 6, 27170.	1.6	4

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19	Well posedness of an angiogenesis related integrodifferential diffusion model. Applied Mathematical Modelling, 2016, 40, 5560-5575.	2.2	7
20	Well posedness of an integrodifferential kinetic model of Fokker–Planck type for angiogenesis. Nonlinear Analysis: Real World Applications, 2016, 30, 184-212.	0.9	10
21	Domain and Parameter Reconstruction in Photothermal Imaging. Mathematics in Industry, 2016, , 235-242.	0.1	0
22	Protein unfolding and refolding as transitions through virtual states. Europhysics Letters, 2014, 108, 28002.	0.7	5
23	Parameter Identification in Photothermal Imaging. Journal of Mathematical Imaging and Vision, 2014, 49, 273-288.	0.8	9
24	Ripples in a graphene membrane coupled to Glauber spins. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P09015.	0.9	13
25	Driving Dislocations in Graphene. Science, 2012, 337, 161-162.	6.0	18
26	Propagation Failure Along Myelinated Nerves. Journal of Nonlinear Science, 2011, 21, 499-520.	1.0	7
27	Theory of defect dynamics in graphene: defect groupings and their stability. Continuum Mechanics and Thermodynamics, 2011, 23, 337-346.	1.4	9
28	Determining Planar Multiple Sound-Soft Obstacles fromÂScattered Acoustic Fields. Journal of Mathematical Imaging and Vision, 2010, 36, 185-199.	0.8	18
29	Nonreflecting boundary conditions for discrete waves. Journal of Computational Physics, 2010, 229, 1879-1896.	1.9	4
30	Analysis of helium bubble growth in radioactive waste. Nonlinear Analysis: Real World Applications, 2010, 11, 4174-4184.	0.9	1
31	Nonequilibrium dynamics of a fast oscillator coupled to Glauber spins. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P09019.	0.9	11
32	Phase transitions in a mechanical system coupled to Glauber spins. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P06016.	0.9	9
33	Self-sustained current oscillations in the kinetic theory of semiconductor superlattices. Journal of Computational Physics, 2009, 228, 7689-7705.	1.9	9
34	Toy nanoindentation model and incipient plasticity. Chaos, Solitons and Fractals, 2009, 42, 1623-1630.	2.5	5
35	Theory of surface deposition from boundary layers containing condensable vapour and particles. Journal of Fluid Mechanics, 2009, 626, 183-210.	1.4	5
36	Explosive behavior in spatially discrete reaction-diffusion systems. Discrete and Continuous Dynamical Systems - Series B, 2009, 12, 693-711.	0.5	1

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37	Domain reconstruction using photothermal techniques. Journal of Computational Physics, 2008, 227, 8083-8106.	1.9	20
38	Topological Derivatives for Shape Reconstruction. Lecture Notes in Mathematics, 2008, , 85-133.	0.1	26
39	Dislocations in graphene. New Journal of Physics, 2008, 10, 053021.	1.2	80
40	Dislocations in cubic crystals described by discrete models. Physica A: Statistical Mechanics and Its Applications, 2007, 376, 361-377.	1.2	10
41	Kinetics of helium bubble formation in nuclear materials. Physica D: Nonlinear Phenomena, 2006, 222, 131-140.	1.3	12
42	Wave trains, self-oscillations and synchronization in discrete media. Physica D: Nonlinear Phenomena, 2005, 207, 117-136.	1.3	15
43	Depinning Transitions in Discrete Reaction-Diffusion Equations. SIAM Journal on Applied Mathematics, 2003, 63, 1056-1082.	0.8	45
44	Pulse Propagation in Discrete Systems of Coupled Excitable Cells. SIAM Journal on Applied Mathematics, 2003, 63, 619-635.	0.8	33
45	Edge Dislocations in Crystal Structures Considered as Traveling Waves in Discrete Models. Physical Review Letters, 2003, 90, 135502.	2.9	34
46	Wavefronts for discrete two-dimensional nonlinear diffusion equations. Applied Mathematics Letters, 2002, 15, 415-421.	1.5	2
47	Pile-Up Solutions for Some Systems of Conservation Laws Modelling Dislocation Interaction in Crystals. SIAM Journal on Applied Mathematics, 2001, 61, 2168-2199.	0.8	4
48	Numerical Study of Hyperbolic Equations with Integral Constraints Arising in Semiconductor Theory. SIAM Journal on Numerical Analysis, 2001, 39, 168-191.	1.1	8
49	Asymptotic profiles for convection–diffusion equations with variable diffusion. Nonlinear Analysis: Theory, Methods & Applications, 2001, 45, 407-433.	0.6	6
50	LONG TIME ASYMPTOTICS FOR THE SEMICONDUCTOR VLASOV–POISSON–BOLTZMANN EQUATIONS. Mathematical Models and Methods in Applied Sciences, 2001, 11, 1631-1655.	1.7	1
51	Wave Front Depinning Transition in Discrete One-Dimensional Reaction-Diffusion Systems. Physical Review Letters, 2001, 86, 6034-6037.	2.9	43
52	Long-time behaviour for solutions of the Vlasov-Poisson-Fokker-Planck equation. Mathematical Methods in the Applied Sciences, 1998, 21, 985-1014.	1.2	25
53	Large-Time Behavior in Incompressible Navier–Stokes Equations. SIAM Journal on Mathematical Analysis, 1996, 27, 449-475.	0.9	54
54	Asymptotic behavior for the vorticity equations in dimensions two and three. Communications in Partial Differential Equations, 1994, 19, 827-872.	1.0	46

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55	Sharp estimates of the energy for the solutions of some dissipative second order evolution equations. Potential Analysis, 1992, 1, 265-289.	0.4	12