

# Ana Carpio

## List of Publications by Year in descending order

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55  
papers

738  
citations

567144

15  
h-index

580701

25  
g-index

56  
all docs

56  
docs citations

56  
times ranked

517  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dislocations in graphene. <i>New Journal of Physics</i> , 2008, 10, 053021.	1.2	80
2	Large-Time Behavior in Incompressible Navier–Stokes Equations. <i>SIAM Journal on Mathematical Analysis</i> , 1996, 27, 449-475.	0.9	54
3	Asymptotic behavior for the vorticity equations in dimensions two and three. <i>Communications in Partial Differential Equations</i> , 1994, 19, 827-872.	1.0	46
4	Depinning Transitions in Discrete Reaction-Diffusion Equations. <i>SIAM Journal on Applied Mathematics</i> , 2003, 63, 1056-1082.	0.8	45
5	Wave Front Depinning Transition in Discrete One-Dimensional Reaction-Diffusion Systems. <i>Physical Review Letters</i> , 2001, 86, 6034-6037.	2.9	43
6	Edge Dislocations in Crystal Structures Considered as Traveling Waves in Discrete Models. <i>Physical Review Letters</i> , 2003, 90, 135502.	2.9	34
7	Pulse Propagation in Discrete Systems of Coupled Excitable Cells. <i>SIAM Journal on Applied Mathematics</i> , 2003, 63, 619-635.	0.8	33
8	Topological Derivatives for Shape Reconstruction. <i>Lecture Notes in Mathematics</i> , 2008, , 85-133.	0.1	26
9	Long-time behaviour for solutions of the Vlasov-Poisson-Fokker-Planck equation. <i>Mathematical Methods in the Applied Sciences</i> , 1998, 21, 985-1014.	1.2	25
10	When topological derivatives met regularized Gauss-Newton iterations in holographic 3D imaging. <i>Journal of Computational Physics</i> , 2019, 388, 224-251.	1.9	21
11	Domain reconstruction using photothermal techniques. <i>Journal of Computational Physics</i> , 2008, 227, 8083-8106.	1.9	20
12	Determining Planar Multiple Sound-Soft Obstacles from Scattered Acoustic Fields. <i>Journal of Mathematical Imaging and Vision</i> , 2010, 36, 185-199.	0.8	18
13	Driving Dislocations in Graphene. <i>Science</i> , 2012, 337, 161-162.	6.0	18
14	Tracking collective cell motion by topological data analysis. <i>PLoS Computational Biology</i> , 2020, 16, e1008407.	1.5	17
15	Wave trains, self-oscillations and synchronization in discrete media. <i>Physica D: Nonlinear Phenomena</i> , 2005, 207, 117-136.	1.3	15
16	Ripples in a graphene membrane coupled to Glauber spins. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2012, 2012, P09015.	0.9	13
17	Sharp estimates of the energy for the solutions of some dissipative second order evolution equations. <i>Potential Analysis</i> , 1992, 1, 265-289.	0.4	12
18	Kinetics of helium bubble formation in nuclear materials. <i>Physica D: Nonlinear Phenomena</i> , 2006, 222, 131-140.	1.3	12

#	ARTICLE	IF	CITATIONS
19	Constructing solutions for a kinetic model of angiogenesis in annular domains. <i>Applied Mathematical Modelling</i> , 2017, 45, 303-322.	2.2	12
20	Biofilms as poroelastic materials. <i>International Journal of Non-Linear Mechanics</i> , 2019, 109, 1-8.	1.4	12
21	Nonequilibrium dynamics of a fast oscillator coupled to Glauber spins. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010, 2010, P09019.	0.9	11
22	Dislocations in cubic crystals described by discrete models. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 376, 361-377.	1.2	10
23	Well posedness of an integrodifferential kinetic model of Fokker-Planck type for angiogenesis. <i>Nonlinear Analysis: Real World Applications</i> , 2016, 30, 184-212.	0.9	10
24	Self-sustained current oscillations in the kinetic theory of semiconductor superlattices. <i>Journal of Computational Physics</i> , 2009, 228, 7689-7705.	1.9	9
25	Phase transitions in a mechanical system coupled to Glauber spins. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010, 2010, P06016.	0.9	9
26	Theory of defect dynamics in graphene: defect groupings and their stability. <i>Continuum Mechanics and Thermodynamics</i> , 2011, 23, 337-346.	1.4	9
27	Parameter Identification in Photothermal Imaging. <i>Journal of Mathematical Imaging and Vision</i> , 2014, 49, 273-288.	0.8	9
28	Bayesian approach to inverse scattering with topological priors. <i>Inverse Problems</i> , 2020, 36, 105001.	1.0	9
29	Numerical Study of Hyperbolic Equations with Integral Constraints Arising in Semiconductor Theory. <i>SIAM Journal on Numerical Analysis</i> , 2001, 39, 168-191.	1.1	8
30	Dynamic energy budget approach to evaluate antibiotic effects on biofilms. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2018, 54, 70-83.	1.7	8
31	Propagation Failure Along Myelinated Nerves. <i>Journal of Nonlinear Science</i> , 2011, 21, 499-520.	1.0	7
32	Well posedness of an angiogenesis related integrodifferential diffusion model. <i>Applied Mathematical Modelling</i> , 2016, 40, 5560-5575.	2.2	7
33	A convergent numerical scheme for integrodifferential kinetic models of angiogenesis. <i>Journal of Computational Physics</i> , 2018, 375, 1270-1294.	1.9	7
34	Dynamics of <i>Pseudomonas putida</i> biofilms in an upscale experimental framework. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2018, 45, 899-911.	1.4	7
35	Asymptotic profiles for convection-diffusion equations with variable diffusion. <i>Nonlinear Analysis: Theory, Methods &amp; Applications</i> , 2001, 45, 407-433.	0.6	6
36	Processing the 2D and 3D Fresnel experimental databases via topological derivative methods. <i>Inverse Problems</i> , 2021, 37, 105012.	1.0	6

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37	Toy nanoindentation model and incipient plasticity. <i>Chaos, Solitons and Fractals</i> , 2009, 42, 1623-1630.	2.5	5
38	Theory of surface deposition from boundary layers containing condensable vapour and particles. <i>Journal of Fluid Mechanics</i> , 2009, 626, 183-210.	1.4	5
39	Protein unfolding and refolding as transitions through virtual states. <i>Europhysics Letters</i> , 2014, 108, 28002.	0.7	5
40	Pile-Up Solutions for Some Systems of Conservation Laws Modelling Dislocation Interaction in Crystals. <i>SIAM Journal on Applied Mathematics</i> , 2001, 61, 2168-2199.	0.8	4
41	Nonreflecting boundary conditions for discrete waves. <i>Journal of Computational Physics</i> , 2010, 229, 1879-1896.	1.9	4
42	Stenosis triggers spread of helical <i>Pseudomonas</i> biofilms in cylindrical flow systems. <i>Scientific Reports</i> , 2016, 6, 27170.	1.6	4
43	Optimization Methods for In-Line Holography. <i>SIAM Journal on Imaging Sciences</i> , 2018, 11, 923-956.	1.3	4
44	Uncertainty quantification in Covid-19 spread: Lockdown effects. <i>Results in Physics</i> , 2022, 35, 105375.	2.0	3
45	Wavefronts for discrete two-dimensional nonlinear diffusion equations. <i>Applied Mathematics Letters</i> , 2002, 15, 415-421.	1.5	2
46	Multifrequency Topological Derivative Approach to Inverse Scattering Problems in Attenuating Media. <i>Symmetry</i> , 2021, 13, 1702.	1.1	2
47	Incorporating Cellular Stochasticity in Solid-Fluid Mixture Biofilm Models. <i>Entropy</i> , 2020, 22, 188.	1.1	2
48	Immersed Boundary Approach to Biofilm Spread on Surfaces. <i>Communications in Computational Physics</i> , 2022, 31, 257-292.	0.7	2
49	LONG TIME ASYMPTOTICS FOR THE SEMICONDUCTOR VLASOV-POISSON-BOLTZMANN EQUATIONS. <i>Mathematical Models and Methods in Applied Sciences</i> , 2001, 11, 1631-1655.	1.7	1
50	Analysis of helium bubble growth in radioactive waste. <i>Nonlinear Analysis: Real World Applications</i> , 2010, 11, 4174-4184.	0.9	1
51	Mathematical models of the spread and consequences of the SARS-CoV-2 pandemics. <i>Journal of Mathematics in Industry</i> , 2021, 11, 15.	0.7	1
52	Explosive behavior in spatially discrete reaction-diffusion systems. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2009, 12, 693-711.	0.5	1
53	Pattern recognition in data as a diagnosis tool. <i>Journal of Mathematics in Industry</i> , 2022, 12, .	0.7	1
54	Domain and Parameter Reconstruction in Photothermal Imaging. <i>Mathematics in Industry</i> , 2016, , 235-242.	0.1	0

#	ARTICLE	IF	CITATIONS
55	Parameter identification in epidemiological models. , 2022, , 103-124.		0