Francisco GuillÃ©n-GonzÃ¡lez

List of Publications by Year
in descending order

82 papers	1,170 citations	471509 17 h-index	434195 31 g-index
86 all docs	86 docs citations	86 times ranked	449 citing authors

#	Article	IF	Citations
1	On linear schemes for a Cahnâ€“Hilliard diffuse interface model. Journal of Computational Physics, 2013, 234, 140-171.	3.8	145
2	Second order schemes and time-step adaptivity for Allenâ€“Cahn and Cahnâ€“Hilliard models. Computers and Mathematics With Applications, 2014, 68, 821-846.	2.7	98
3	Mathematical Justification of the Hydrostatic Approximation in the Primitive Equations of Geophysical Fluid Dynamics. SIAM Journal on Mathematical Analysis, 2001, 33, 847-859.	1.9	78
4	Finite element approximation of nematic liquid crystal flows using a saddle-point structure. Journal of Computational Physics, 2011, 230, 1686-1706.	3.8	68
5	Numerical Methods for Solving the Cahnâ€“Hilliard Equation and Its Applicability to Related Energy-Based Models. Archives of Computational Methods in Engineering, 2015, 22, 269-289.	10.2	66
6	On the approximate controllability of Stackelberg-Nash strategies for Stokes equations. Proceedings of the American Mathematical Society, 2013, 141, 1759-1773.	0.8	36
7	Reproductivity for a nematic liquid crystal model. Zeitschrift Fur Angewandte Mathematik Und Physik, 2006, 57, 984-998.	1.4	32
8	An Overview on Numerical Analyses of Nematic Liquid Crystal Flows. Archives of Computational Methods in Engineering, 2011, 18, 285-313.	10.2	30
9	Splitting Schemes for a Navier-Stokes-Cahn-Hilliard Model for Two Fluids with Different Densities. Journal of Computational Mathematics, 2014, 32, 643-664.	0.4	29
10	On Fully Decoupled, Convergent Schemes for Diffuse Interface Models for Two-Phase Flow with General Mass Densities. Communications in Computational Physics, 2016, 19, 1473-1502.	1.7	29
11	Unconditionally energy stable numerical schemes for phase-field vesicle membrane model. Journal of Computational Physics, 2018, 354, 67-85.	3.8	26
12	Regularity and time-periodicity for a nematic liquid crystal model. Nonlinear Analysis: Theory, Methods & Applications, 2009, 71, 539-549.	1.1	23
13	Weak Time Regularity and Uniqueness for a Q-Tensor Model. SIAM Journal on Mathematical Analysis, 2014, 46, 3540-3567.	1.9	22
14	Weak solutions for an initialâ€“boundary Q-tensor problem related to liquid crystals. Nonlinear Analysis: Theory, Methods & Applications, 2015, 112, 84-104.	1.1	21
15	Unconditionally energy stable fully discrete schemes for a chemo-repulsion model. Mathematics of Computation, 2019, 88, 2069-2099.	2.1	20
16	A chemorepulsion model with superlinear production: analysis of the continuous problem and two approximately positive and energy-stable schemes. Advances in Computational Mathematics, 2021, 47, 1.	1.6	20
17	Mixed formulation, approximation and decoupling algorithm for a penalized nematic liquid crystals model. Mathematics of Computation, 2011, 80, 781-781.	2.1	19
18	Sufficient conditions for regularity and uniqueness of a 3D nematic liquid crystal model. Mathematische Nachrichten, 2009, 282, 846-867.	0.8	18

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19	Unconditional stability and convergence of fully discrete schemes for $2D$ viscous fluids models with mass diffusion. Mathematics of Computation, 2008, 77, 1495-1524.	2.1	17
20	Approximation by an iterative method for regular solutions for incompressible fluids with mass diffusion. Journal of Mathematical Analysis and Applications, 2007, 326, 468-487.	1.0	16
21	Study of a chemo-repulsion model with quadratic production. Part II: Analysis of an unconditionally energy-stable fully discrete scheme. Computers and Mathematics With Applications, 2020, 80, 636-652.	2.7	16
22	A Time-Splitting Finite-Element Stable Approximation for the Ericksen--Leslie Equations. SIAM Journal of Scientific Computing, 2015, 37, B261-B282.	2.8	15
23	Optimal bilinear control problem related to a chemo-repulsion system in 2D domains. ESAIM - Control, Optimisation and Calculus of Variations, 2020, 26, 29.	1.3	14
24	Dubovitskii-Milyutin formalism applied to optimal control problems with constraints given by the heat equation with final data. IMA Journal of Mathematical Control and Information, 2010, 27, 57-76.	1.7	13
25	New error estimates for a viscosity-splitting scheme in time for the three-dimensional Navier-Stokes equations. IMA Journal of Numerical Analysis, 2011, 31, 556-579.	2.9	13
26	Analysis of the hydrostatic Stokes problem and finite-element approximation in unstructured meshes. Numerische Mathematik, 2015, 130, 225-256.	1.9	13
27	Global in time solution and time-periodicity for a smectic-A liquid crystal model. Communications on Pure and Applied Analysis, 2010, 9, 1473-1493.	0.8	13
28	Local strong solution for the incompressible Korteweg model. Comptes Rendus Mathematique, 2006, 342, 169-174.	0.3	12
29	Conditional Stability and Convergence of a Fully Discrete Scheme for Three-Dimensional Navierâ€“Stokes Equations with Mass Diffusion. SIAM Journal on Numerical Analysis, 2008, 46, 2276-2308.	2.3	12
30	STABILITY FOR NEMATIC LIQUID CRYSTALS WITH STRETCHING TERMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 2937-2942.	1.7	12
31	A Regularity Criterion for a 3D Chemo-Repulsion System and Its Application to a Bilinear Optimal Control Problem. SIAM Journal on Control and Optimization, 2020, 58, 1457-1490.	2.1	11
32	Time-periodic solutions for a generalized Boussinesq model with Neumann boundary conditions for temperature. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 2153-2164.	2.1	10
33	Stabilized Schemes for the Hydrostatic Stokes Equations. SIAM Journal on Numerical Analysis, 2015, 53, 1876-1896.	2.3	10
34	Study of a chemo-repulsion model with quadratic production. Part I: Analysis of the continuous problem and time-discrete numerical schemes. Computers and Mathematics With Applications, 2020, 80, 692-713.	2.7	10
35	A review of mathematical analysis of nematic and smectic-A liquid crystal models. European Journal of Applied Mathematics, 2014, 25, 133-153.	2.9	9
36	Convergence to equilibrium for smectic-A liquid crystals in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:mn>3</mml:mn><mml:mi>D</mml:mi></mml:math> domains without constraints for the viscosity. Nonlinear Analysis: Theory, Methods & Applications, 2014, 102, 208-219.	1.1	9

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37	On a Bi-dimensional Chemo-repulsion Model with Nonlinear Production and a Related Optimal Control Problem. Acta Applicandae Mathematicae, 2020, 170, 963-979.	1.0	9
38	Linear unconditional energyâ€stable splitting schemes for a phaseâ€field model for nematicâ€“isotropic flows with anchoring effects. International Journal for Numerical Methods in Engineering, 2016, 108, 535-567.	2.8	8
39	On the stability of approximations for the Stokes problem using different finite element spaces for each component of the velocity. Applied Numerical Mathematics, 2016, 99, 51-76.	2.1	8
40	From a cell model with active motion to a Heleâ€“Shaw-like system: a numerical approach. Numerische Mathematik, 2019, 143, 107-137.	1.9	8
41	A common framework for the robust design of tuned mass damper techniques to mitigate pedestrian-induced vibrations in lively footbridges. Structures, 2021, 34, 1276-1290.	3.6	8
42	On the strong solutions of the primitive equations in 2D domains. Nonlinear Analysis: Theory, Methods & Applications, 2002, 50, 621-646.	1.1	7
43	Density-Dependent Incompressible Fluids with Non-Newtonian Viscosity. Czechoslovak Mathematical Journal, 2004, 54, 637-656.	0.3	7
44	Error estimates of a linear decoupled Eulerâ€“FEM scheme for a mass diffusion model. Numerische Mathematik, 2011, 117, 333-371.	1.9	7
45	Convergence and error estimates of viscosity-splitting finite-element schemes for the primitive equations. Applied Numerical Mathematics, 2017, 111, 219-245.	2.1	7
46	Convergence to equilibrium of global weak solutions for a Cahnâ€“Hilliardâ€“Navierâ€“Stokes vesicle model. Zeitschrift Fur Angewandte Mathematik Und Physik, 2019, 70, 1.	1.4	7
47	Global solution of nematic liquid crystals models. Comptes Rendus Mathematique, 2002, 335, 1085-1090.	0.3	6
48	Bubble finite elements for the primitive equations of the ocean. Numerische Mathematik, 2005, 101, 689-728.	1.9	6
49	A corrector for the sverdrup solution for a domain with islands. Applicable Analysis, 2004, 83, 217-230.	1.3	5
50	A Splitting in Time Scheme and Augmented Lagrangian Method for a Nematic Liquid Crystal Problem. Journal of Scientific Computing, 2015, 65, 1129-1144.	2.3	5
51	Stability and convergence at infinite time of several fully discrete schemes for a Ginzburg-Landau model for nematic liquid crystal flows. Discrete and Continuous Dynamical Systems, 2012, 32, 4229-4246.	0.9	5
52	Comparison of two finite element schemes for a chemo-repulsion system with quadratic production. Applied Numerical Mathematics, 2022, 173, 193-210.	2.1	5
53	Superconvergence in velocity and pressure for the 3D time-dependent Navier-Stokes Equations. BoletÃn De La Sociedad EspaÃ‘ola De MatemÃ‡tica Aplicada, 2012, 57, 49-67.	0.9	4
54	Approximation of Smectic-A liquid crystals. Computer Methods in Applied Mechanics and Engineering, 2015, 290, 342-361.	6.6	4

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55	A projectionâ€based timeâ€splitting algorithm for approximating nematic liquid crystal flows with stretching. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2017, 97, 1204-1219.	1.6	4
56	On a double penalized Smectic-A model. Discrete and Continuous Dynamical Systems, 2012, 32, 4171-4182.	0.9	4
57	Sharp error estimates for a fractional-step method applied to the 3D Navierâ€“Stokes equations. Comptes Rendus Mathematique, 2007, 345, 359-362.	0.3	3
58	On the Controllability of the Hydrostatic Stokes Equations. Journal of Mathematical Fluid Mechanics, 2008, 10, 402-422.	1.0	3
59	On the asymptotic behaviour of the 2D Navierâ€Stokes equations with Navier friction conditions towards Euler equations. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2009, 89, 810-822.	1.6	3
60	Stability and convergence for a complete model of mass diffusion. Applied Numerical Mathematics, 2011, 61, 1161-1185.	2.1	3
61	Optimal first-order error estimates of a fully segregated scheme for the Navierâ€“Stokes equations. Journal of Computational and Applied Mathematics, 2017, 321, 348-370.	2.0	3
62	Theoretical analysis for a PDEâ€“ODE system related to a glioblastoma tumor with vasculature. Zeitschrift Fur Angewandte Mathematik Und Physik, 2021, 72, 1.	1.4	3
63	Theoretical and numerical analysis for a hybrid tumor model with diffusion depending on vasculature. Journal of Mathematical Analysis and Applications, 2021, 503, 125325.	1.0	3
64	Hydrostatic Stokes equations with non-smooth data for mixed boundary conditions. Annales De L'Institut Henri Poincare (C) Analyse Non Lineaire, 2004, 21, 807-826.	1.4	2
65	On the variational inequalities related to viscous density-dependent incompressible fluids. Annali Dell'Universita Di Ferrara, 2010, 56, 163-180.	1.3	2
66	Nematic order on a deformable vesicle with anchoring effects. Results in Applied Mathematics, 2020, 8, 100102.	1.3	2
67	Long-Time Behavior of a Cahn-Hilliard-Navier-Stokes Vesicle-Fluid Interaction Model. SEMA SIMAI Springer Series, 2016, , 125-145.	0.7	2
68	Iterative method for mass diffusion model with density dependent viscosity. Discrete and Continuous Dynamical Systems - Series B, 2008, 10, 823-841.	0.9	2
69	Local and global strong solution by the semi-Galerkin method for the model of mass diffusion. Matematica Contemporanea, 2007, 32, .	0.0	2
70	On the Singular Times of Fluids with Nonlinear Viscosity. Journal of Mathematical Analysis and Applications, 2001, 263, 380-405.	1.0	1
71	The Cauchy problem and decay rates for strong solutions of a Boussinesq system. Abstract and Applied Analysis, 2005, 2005, 757-766.	0.7	1
72	Stability and convergence of two discrete schemes for a degenerate solutal non-isothermal phase-field model. ESAIM: Mathematical Modelling and Numerical Analysis, 2009, 43, 563-589.	1.9	1

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73	Reproductive solution of a second-grade fluid system. Comptes Rendus Mathematique, 2010, 348, 879-883.	0.3	1
74	Finite Element Approximation of Hydrostatic Stokes Equations: Review and Tests. SEMA SIMAI Springer Series, 2016, , 433-451.	0.7	1
75	On the uniqueness and regularity of the Primitive Equations imposing additional anisotropic regularity. Applied Mathematics Letters, 2005, 18, 783-789.	2.7	0
76	CONVERGENCE AND ERROR ESTIMATES OF TWO ITERATIVE METHODS FOR THE STRONG SOLUTION OF THE INCOMPRESSIBLE KORTEWEG MODEL. Mathematical Models and Methods in Applied Sciences, 2009, 19, 1713-1742.	3.3	0
77	Existence of Global-in-Time Weak Solutions for a Solidification Model with Convection in the Liquid and Rigid Motion in the Solid. SIAM Journal on Mathematical Analysis, 2020, 52, 6260-6280.	1.9	0
78	Fluid vesicles with internal nematic order. Physica D: Nonlinear Phenomena, 2021, 415, 132768.	2.8	0
79	Splitting Schemes for Mixtures of Nematic-Isotropic Flows with Anchoring Effects. Lecture Notes in Computer Science, 2018, , 77-84.	1.3	0
80	Theoretical and Numerical Results for a Chemorepulsion Model with Non-constant Diffusion Coefficients. Advances in Mathematical Fluid Mechanics, 2021, , 53-90.	0.1	0
81	Motion-Based Design of Semi-active Tuned Mass Dampers to Control Pedestrian-Induced Vibrations in Footbridges Under Uncertainty Conditions. Lecture Notes in Electrical Engineering, 2021, , 783-793.	0.4	0
82	Numerical Analysis of a Stable Discontinuous Galerkin Scheme for the Hydrostatic Stokes Problem. Journal of Numerical Mathematics, 2020, .	3.5	0