Abner J Salgado

List of Publications by Year
in descending order

51 papers	1,273 citations	430874 18 h-index	377865 34 g-index
51 all docs	51 docs citations	51 times ranked	645 citing authors

#	Article	IF	Citations
1	A PDE Approach to Fractional Diffusion in General Domains: A Priori Error Analysis. Foundations of Computational Mathematics, 2015, 15, 733-791.	2.5	173
2	A splitting method for incompressible flows with variable density based on a pressure Poisson equation. Journal of Computational Physics, 2009, 228, 2834-2846.	3.8	133
3	Numerical methods for fractional diffusion. Computing and Visualization in Science, 2018, 19, 19-46.	1.2	104
4	A PDE Approach to Space-Time Fractional Parabolic Problems. SIAM Journal on Numerical Analysis, 2016, 54, 848-873.	2.3	92
5	A diffuse interface model for two-phase ferrofluid flows. Computer Methods in Applied Mechanics and Engineering, 2016, 309, 497-531.	6.6	54
6	A Space-Time Fractional Optimal Control Problem: Analysis and Discretization. SIAM Journal on Control and Optimization, 2016, 54, 1295-1328.	2.1	54
7	Error Analysis of a Fractional Time-Stepping Technique for Incompressible Flows with Variable Density. SIAM Journal on Numerical Analysis, 2011, 49, 917-944.	2.3	52
8	Preconditioned steepest descent methods for some nonlinear elliptic equations involving p-Laplacian terms. Journal of Computational Physics, 2017, 334, 45-67.	3.8	45
9	Numerical analysis of strongly nonlinear PDEs. Acta Numerica, 2017, 26, 137-303.	10.7	44
10	Piecewise polynomial interpolation in Muckenhoupt weighted Sobolev spaces and applications. Numerische Mathematik, 2016, 132, 85-130.	1.9	41
11	A DIFFUSE INTERFACE MODEL FOR ELECTROWETTING WITH MOVING CONTACT LINES. Mathematical Models and Methods in Applied Sciences, 2014, 24, 67-111.	3.3	36
12	Tensor FEM for Spectral Fractional Diffusion. Foundations of Computational Mathematics, 2019, 19, 901-962.	2.5	34
13	Multilevel methods for nonuniformly elliptic operators and fractional diffusion. Mathematics of Computation, 2016, 85, 2583-2607.	2.1	33
14	Optimization with Respect to Order in a Fractional Diffusion Model: Analysis, Approximation and Algorithmic Aspects. Journal of Scientific Computing, 2018, 77, 204-224.	2.3	29
15	Discrete Total Variation Flows without Regularization. SIAM Journal on Numerical Analysis, 2014, 52, 363-385.	2.3	26
16	A PDE approach to fractional diffusion: A posteriori error analysis. Journal of Computational Physics, 2015, 293, 339-358.	3.8	23
17	The equations of ferrohydrodynamics: Modeling and numerical methods. Mathematical Models and Methods in Applied Sciences, 2016, 26, 2393-2449.	3.3	23
18	Regularity of solutions to spaceâ€“time fractional wave equations: A PDE approach. Fractional Calculus and Applied Analysis, 2018, 21, 1262-1293.	2.2	20

#	Article	IF	Citations
19	A diffuse interface fractional time-stepping technique for incompressible two-phase flows with moving contact lines. ESAIM: Mathematical Modelling and Numerical Analysis, 2013, 47, 743-769.	1.9	18
20	A total variation diminishing interpolation operator and applications. Mathematics of Computation, 2015, 84, 2569-2587.	2.1	17
21	A posteriori error estimates for the Stokes problem with singular sources. Computer Methods in Applied Mechanics and Engineering, 2019, 345, 1007-1032.	6.6	16
22	The Micropolar Navierâ€“Stokes equations: <i>A priori</i> error analysis. Mathematical Models and Methods in Applied Sciences, 2014, 24, 1237-1264.	3.3	15
23	A Note on the LadyÅ¾enskaja-BabuÅ¡ka-Brezzi Condition. Journal of Scientific Computing, 2013, 56, 219-229.	2.3	14
24	Adaptive finite element methods for an optimal control problem involving Dirac measures. Numerische Mathematik, 2017, 137, 159-197.	1.9	14
25	The Poisson and Stokes problems on weighted spaces in Lipschitz domains and under singular forcing. Journal of Mathematical Analysis and Applications, 2019, 471, 599-612.	1.0	12
26	Finite Element Approximation of the Parabolic Fractional Obstacle Problem. SIAM Journal on Numerical Analysis, 2016, 54, 2619-2639.	2.3	11
27	Sparse Optimal Control for Fractional Diffusion. Computational Methods in Applied Mathematics, 2018, 18, 95-110.	0.8	11
28	Weighted Sobolev regularity and rate of approximation of the obstacle problem for the integral fractional Laplacian. Mathematical Models and Methods in Applied Sciences, 2019, 29, 2679-2717.	3.3	11
29	Finite element approximation of the Isaacs equation. ESAIM: Mathematical Modelling and Numerical Analysis, 2019, 53, 351-374.	1.9	11
30	Convergence rates for the classical, thin and fractional elliptic obstacle problems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140449.	3.4	10
31	Stability analysis of pressure correction schemes for the Navierâ€“Stokes equations with traction boundary conditions. Computer Methods in Applied Mechanics and Engineering, 2016, 309, 307-324.	6.6	9
32	Generalized Newtonian fluid flow through a porous medium. Journal of Mathematical Analysis and Applications, 2016, 433, 603-621.	1.0	9
33	Some applications of weighted norm inequalities to the error analysis of PDE-constrained optimization problems. IMA Journal of Numerical Analysis, 2018, 38, 852-883.	2.9	9
34	Convergence analysis of a class of massively parallel direction splitting algorithms for the Navier-Stokes equations in simple domains. Mathematics of Computation, 2012, 81, 1951-1977.	2.1	8
35	Stability of the Stokes projection on weighted spaces and applications. Mathematics of Computation, 2020, 89, 1581-1603.	2.1	8
36	Convergence Analysis of Fractional Time-Stepping Techniques for Incompressible Fluids with Microstructure. Journal of Scientific Computing, 2015, 64, 216-233.	2.3	7

#	Article	IF	Citations
37	A note on the Stokes operator and its powers. Journal of Applied Mathematics and Computing, 2011, 36, 241-250.	2.5	6
38	A weighted setting for the stationary Navier Stokes equations under singular forcing. Applied Mathematics Letters, 2020, 99, 105933.	2.7	6
39	A Posteriori Error Estimates for the Stationary Navier--Stokes Equations with Dirac Measures. SIAM Journal of Scientific Computing, 2020, 42, A1860-A1884.	2.8	6
40	An<i>a posteriori</i>error analysis for an optimal control problem with point sources. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 1617-1650.	1.9	5
41	Finite element approximation of an obstacle problem for a class of integroâ€"differential operators. ESAIM: Mathematical Modelling and Numerical Analysis, 2020, 54, 229-253.	1.9	5
42	On the analysis and approximation of some models of fluids over weighted spaces on convex polyhedra. Numerische Mathematik, 2022, 151, 185.	1.9	4
43	The Mongeâ€"AmpÃ¨re equation. Handbook of Numerical Analysis, 2020, 21, 105-219.	1.8	3
44	The stationary Boussinesq problem under singular forcing. Mathematical Models and Methods in Applied Sciences, 2021, 31, 789-827.	3.3	3
45	Preconditioned Accelerated Gradient Descent Methods for Locally Lipschitz Smooth Objectives with Applications to the Solution of Nonlinear PDEs. Journal of Scientific Computing, 2021, 89, 1.	2.3	3
46	Maximumâ€"norm a posteriori error estimates for an optimal control problem. Computational Optimization and Applications, 2019, 73, 997-1017.	1.6	2
47	An a posteriori error analysis of an elliptic optimal control problem in measure space. Computers and Mathematics With Applications, 2019, 77, 2659-2675.	2.7	2
48	Estimation of the continuity constants for BogovskiÄ-and regularized PoincarÃ© integral operators. Journal of Mathematical Analysis and Applications, 2021, 502, 125246.	1.0	2
49	Approximation of elliptic equations with bmo coefficients. IMA Journal of Numerical Analysis, 0, , drv001.	2.9	0
50	The Darcy problem with porosity depending exponentially on the pressure. Journal of Computational and Applied Mathematics, 2021, 398, 113642.	2.0	0
51	Optimization of a Fractional Differential Equation. The IMA Volumes in Mathematics and Its Applications, 2018, , 291-316.	0.5	0