Enrique Otarola

List of Publications by Year
in descending order

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48 papers	922 citations	623188 14 h-index	476904 29 g-index
48 all docs	48 docs citations	48 times ranked	374 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.	1.5	173
2	Numerical methods for fractional diffusion. Computing and Visualization in Science, 2018, 19, 19-46.	1.2	104
3	A PDE Approach to Space-Time Fractional Parabolic Problems. SIAM Journal on Numerical Analysis, 2016, 54, 848-873.	1.1	92
4	A FEM for an Optimal Control Problem of Fractional Powers of Elliptic Operators. SIAM Journal on Control and Optimization, 2015, 53, 3432-3456.	1.1	55
5	A Space-Time Fractional Optimal Control Problem: Analysis and Discretization. SIAM Journal on Control and Optimization, 2016, 54, 1295-1328.	1.1	54
6	Piecewise polynomial interpolation in Muckenhoupt weighted Sobolev spaces and applications. Numerische Mathematik, 2016, 132, 85-130.	0.9	41
7	A Priori Error Estimates for the Optimal Control of the Integral Fractional Laplacian. SIAM Journal on Control and Optimization, 2019, 57, 2775-2798.	1.1	34
8	Tensor FEM for Spectral Fractional Diffusion. Foundations of Computational Mathematics, 2019, 19, 901-962.	1.5	34
9	Multilevel methods for nonuniformly elliptic operators and fractional diffusion. Mathematics of Computation, 2016, 85, 2583-2607.	1.1	33
10	Optimization with Respect to Order in a Fractional Diffusion Model: Analysis, Approximation and Algorithmic Aspects. Journal of Scientific Computing, 2018, 77, 204-224.	1.1	29
11	A PDE approach to fractional diffusion: A posteriori error analysis. Journal of Computational Physics, 2015, 293, 339-358.	1.9	23
12	Regularity of solutions to spaceâ€“time fractional wave equations: A PDE approach. Fractional Calculus and Applied Analysis, 2018, 21, 1262-1293.	1.2	20
13	A Locking-Free FEM in Active Vibration Control of a Timoshenko Beam. SIAM Journal on Numerical Analysis, 2009, 47, 2432-2454.	1.1	16
14	A posteriori error estimates for the Stokes problem with singular sources. Computer Methods in Applied Mechanics and Engineering, 2019, 345, 1007-1032.	3.4	16
15	Adaptive finite element methods for an optimal control problem involving Dirac measures. Numerische Mathematik, 2017, 137, 159-197.	0.9	14
16	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.	0.5	12
17	Finite Element Approximation of the Parabolic Fractional Obstacle Problem. SIAM Journal on Numerical Analysis, 2016, 54, 2619-2639.	1.1	11
18	Sparse Optimal Control for Fractional Diffusion. Computational Methods in Applied Mathematics, 2018, 18, 95-110.	0.4	11

#	Article	IF	Citations
19	Error Estimates for the Optimal Control of a Parabolic Fractional PDE. SIAM Journal on Numerical Analysis, 2021, 59, 1140-1165.	1.1	11
20	Convergence rates for the classical, thin and fractional elliptic obstacle problems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140449.	1.6	10
21	An a posteriori error analysis for an optimal control problem involving the fractional Laplacian. IMA Journal of Numerical Analysis, 2018, 38, 198-226.	1.5	10
22	Some applications of weighted norm inequalities to the error analysis of PDE-constrained optimization problems. IMA Journal of Numerical Analysis, 2018, 38, 852-883.	1.5	9
23	An adaptive finite element method for the sparse optimal control of fractional diffusion. Numerical Methods for Partial Differential Equations, 2020, 36, 302-328.	2.0	9
24	A locking-free scheme for the LQR control of a Timoshenko beam. Journal of Computational and Applied Mathematics, 2011, 235, 1383-1393.	1.1	8
25	A PDE approach to fractional diffusion: a space-fractional wave equation. Numerische Mathematik, 2019, 143, 177-222.	0.9	8
26	Stability of the Stokes projection on weighted spaces and applications. Mathematics of Computation, 2020, 89, 1581-1603.	1.1	8
27	Error Estimates for Optimal Control Problems Involving the Stokes System and Dirac Measures. Applied Mathematics and Optimization, 2021, 84, 1717-1750.	0.8	8
28	An Adaptive FEM for the Pointwise Tracking Optimal Control Problem of the Stokes Equations. SIAM Journal of Scientific Computing, 2019, 41, A2967-A2998.	1.3	6
29	A weighted setting for the stationary Navier Stokes equations under singular forcing. Applied Mathematics Letters, 2020, 99, 105933.	1.5	6
30	A Posteriori Error Estimates for the Stationary Navier–Stokes Equations with Dirac Measures. SIAM Journal of Scientific Computing, 2020, 42, A1860-A1884.	1.3	6
31	A piecewise linear FEM for an optimal control problem of fractional operators: error analysis on curved domains. ESAIM: Mathematical Modelling and Numerical Analysis, 0, , .	0.8	5
32	Ana posteriorierror analysis for an optimal control problem with point sources. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 1617-1650.	0.8	5
33	A reaction coefficient identification problem for fractional diffusion. Inverse Problems, 2019, 35, 045010.	1.0	5
34	Numerical approximation of the LQR problem inÂaÂstrongly damped wave equation. Computational Optimization and Applications, 2010, 47, 161-178.	0.9	4
35	Adaptive finite element methods for sparse PDE-constrained optimization. IMA Journal of Numerical Analysis, 2020, 40, 2106-2142.	1.5	4
36	Fractional Semilinear Optimal Control: Optimality Conditions, Convergence, and Error Analysis. SIAM Journal on Numerical Analysis, 2022, 60, 1-27.	1.1	4

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37	On the analysis and approximation of some models of fluids over weighted spaces on convex polyhedra. Numerische Mathematik, 2022, 151, 185.	0.9	4
38	A robust numerical method for a control problem involving singularly perturbed equations. Computers and Mathematics With Applications, 2016, 72, 974-991.	1.4	3
39	The stationary Boussinesq problem under singular forcing. Mathematical Models and Methods in Applied Sciences, 2021, 31, 789-827.	1.7	3
40	Error Estimates for FEM Discretizations of the Navierâ€“Stokes Equations with Dirac Measures. Journal of Scientific Computing, 2021, 87, 1.	1.1	3
41	A posteriori error estimates in W1,â€¯Ã—â€¯L spaces for the Stokes system with Dirac measures. Computers and Mathematics With Applications, 2021, 94, 47-59.	1.4	3
42	A posteriori error estimators for stabilized finite element approximations of an optimal control problem. Computer Methods in Applied Mechanics and Engineering, 2018, 340, 147-177.	3.4	2
43	Maximumâ€“norm a posteriori error estimates for an optimal control problem. Computational Optimization and Applications, 2019, 73, 997-1017.	0.9	2
44	An a posteriori error analysis of an elliptic optimal control problem in measure space. Computers and Mathematics With Applications, 2019, 77, 2659-2675.	1.4	2
45	A Posteriori Error Estimation for a PDE-Constrained Optimization Problem Involving the Generalized Oseen Equations. SIAM Journal of Scientific Computing, 2018, 40, A2200-A2233.	1.3	1
46	Error Estimates for a Pointwise Tracking Optimal Control Problem of a Semilinear Elliptic Equation. SIAM Journal on Control and Optimization, 2022, 60, 1763-1790.	1.1	1
47	Optimization of a Fractional Differential Equation. The IMA Volumes in Mathematics and Its Applications, 2018, , 291-316.	0.5	0
48	A Posteriori Error Estimates for an Optimal Control Problem with a Bilinear State Equation. Journal of Optimization Theory and Applications, 0, , 1.	0.8	0