Eduardo Casas

List of Publications by Year in Descending Order

Source: https://exaly.com/author-pdf/6398263/eduardo-casas-publications-by-year.pdf
Version: 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

108 papers	2,778 citations	32 h-index	49 g-index
118 ext. papers	3,068 ext. citations	1.5 avg, IF	5.64 L-index

#	Paper	IF	Citations
108	Optimal control of PDEs and FE-approximation. *Handbook of Numerical Analysis*, **2022**, 115-163	1	
107	Optimal Control of Semilinear Parabolic Equations with Non-smooth Pointwise-Integral Control Constraints in Time-Space. *Applied Mathematics and Optimization*, **2022**, 85, 1	1.5	1
106	State Error Estimates for the Numerical Approximation of Sparse Distributed Control Problems in the Absence of Tikhonov Regularization. *Vietnam Journal of Mathematics*, **2021**, 49, 713-738	0.5	4
105	Optimal Control of the Two-Dimensional Evolutionary Navier--Stokes Equations with Measure Valued Controls. *SIAM Journal on Control and Optimization*, **2021**, 59, 2223-2246	1.9	2
104	Sparse optimal control for a semilinear heat equation with mixed control-state constraints regularity of Lagrange multipliers. *ESAIM - Control, Optimisation and Calculus of Variations*, **2021**, 27, 2	1	1
103	Well-posedness of evolutionary Navier-Stokes equations with forces of low regularity on two-dimensional domains. *ESAIM - Control, Optimisation and Calculus of Variations*, **2021**, 27, 61	1	1
102	Critical Cones for Sufficient Second Order Conditions in PDE Constrained Optimization. *SIAM Journal on Optimization*, **2020**, 30, 585-603	2	8
101	State-constrained semilinear elliptic optimization problems with unrestricted sparse controls. *Mathematical Control and Related Fields*, **2020**, 10, 527-546	1.5	2
100	Analysis of control problems of nonmontone semilinear elliptic equations. *ESAIM - Control, Optimisation and Calculus of Variations*, **2020**, 26, 80	1	3
99	On Optimal Control Problems with Controls Appearing Nonlinearly in an Elliptic State Equation. *SIAM Journal on Control and Optimization*, **2020**, 58, 1961-1983	1.9	0
98	First and Second Order Conditions for Optimal Control Problems with an L^0 Term in the Cost Functional. *SIAM Journal on Control and Optimization*, **2020**, 58, 3486-3507	1.9	1
97	Error Estimates for Semilinear Parabolic Control Problems in the Absence of Tikhonov Term. *SIAM Journal on Control and Optimization*, **2019**, 57, 2515-2540	1.9	8
96	Numerical analysis of quasilinear parabolic equations under low regularity assumptions. *Numerische Mathematik*, **2019**, 143, 749-780	2.2	3
95	Optimal Control of the Two-Dimensional Stationary Navier--Stokes Equations with Measure Valued Controls. *SIAM Journal on Control and Optimization*, **2019**, 57, 1328-1354	1.9	5
94	Using sparse control methods to identify sources in linear diffusion-convection equations. *Inverse Problems*, **2019**, 35, 114002	2.3	3
93	Analysis of Optimal Control Problems of Semilinear Elliptic Equations by BV-Functions. *Set-Valued and Variational Analysis*, **2019**, 27, 355-379	1	3
92	Optimal control of a class of reaction–diffusion systems. *Computational Optimization and Applications*, **2018**, 70, 677-707	1.4	6

91	Improved approximation rates for a parabolic control problem with an objective promoting directional sparsity. *Computational Optimization and Applications*, **2018**, 70, 239-266	1.4	7
90	Analysis and optimal control of some quasilinear parabolic equations. *Mathematical Control and Related Fields*, **2018**, 8, 607-623	1.5	8
89	Second-Order Analysis and Numerical Approximation for Bang-Bang Bilinear Control Problems. *SIAM Journal on Control and Optimization*, **2018**, 56, 4203-4227	1.9	9
88	Measure Control of a Semilinear Parabolic Equation with a Nonlocal Time Delay. *SIAM Journal on Control and Optimization*, **2018**, 56, 4434-4460	1.9	
87	The Influence of the Tikhonov Term in Optimal Control of Partial Differential Equations. *SEMA SIMAI Springer Series*, **2018**, 73-94	0.2	1
86	Analysis of Spatio-Temporally Sparse Optimal Control Problems of Semilinear Parabolic Equations. *ESAIM - Control, Optimisation and Calculus of Variations*, **2017**, 23, 263-295	1	19
85	Stabilization by Sparse Controls for a Class of Semilinear Parabolic Equations. *SIAM Journal on Control and Optimization*, **2017**, 55, 512-532	1.9	8
84	A review on sparse solutions in optimal control of partial differential equations. *SeMA Journal*, **2017** , 74, 319-344	1.2	14
83	Optimal Control of Semilinear Parabolic Equations by BV-Functions. *SIAM Journal on Control and Optimization*, **2017**, 55, 1752-1788	1.9	11
82	Sufficient Second-Order Conditions for Bang-Bang Control Problems. *SIAM Journal on Control and Optimization*, **2017**, 55, 3066-3090	1.9	19
81	Optimal Control of Partial Differential Equations. *SEMA SIMAI Springer Series*, **2017**, 3-59	0.2	6
80	Error estimates for the approximation of the velocity tracking problem with Bang-Bang controls. *ESAIM - Control, Optimisation and Calculus of Variations*, **2017**, 23, 1267-1291	1	4
79	Finite element approximation of sparse parabolic control problems. *Mathematical Control and Related Fields*, **2017**, 7, 393-417	1.5	10
78	Approximation of Optimal Control Problems in the Coefficient for the p-Laplace Equation. I. Convergence Result. *SIAM Journal on Control and Optimization*, **2016**, 54, 1406-1422	1.9	16
77	A Review of Numerical Analysis for the Discretization of the Velocity Tracking Problem. *SEMA SIMAI Springer Series*, **2016**, 51-71	0.2	
76	Parabolic control problems in space-time measure spaces. *ESAIM - Control, Optimisation and Calculus of Variations*, **2016**, 22, 355-370	1	18
75	Analysis of the Velocity Tracking Control Problem for the 3D Evolutionary Navier--Stokes Equations. *SIAM Journal on Control and Optimization*, **2016**, 54, 99-128	1.9	15
74	Second-Order Optimality Conditions for Weak and Strong Local Solutions of Parabolic Optimal Control Problems. *Vietnam Journal of Mathematics*, **2016**, 44, 181-202	0.5	16

73	Second Order Optimality Conditions and Their Role in PDE Control. *Deutsche Mathematiker Vereinigung Jahresbericht*, **2015**, 117, 3-44	2.2	41
72	Second Order and Stability Analysis for Optimal Sparse Control of the FitzHugh--Nagumo Equation. *SIAM Journal on Control and Optimization*, **2015**, 53, 2168-2202	1.9	30
71	Error estimates for the discretization of the velocity tracking problem. *Numerische Mathematik*, **2015**, 130, 615-643	2.2	6
70	Sparse initial data identification for parabolic PDE and its finite element approximations. *Mathematical Control and Related Fields*, **2015**, 5, 377-399	1.5	18
69	Optimal Control of Semilinear Elliptic Equations in Measure Spaces. *SIAM Journal on Control and Optimization*, **2014**, 52, 339-364	1.9	23
68	Second-Order and Stability Analysis for State-Constrained Elliptic Optimal Control Problems with Sparse Controls. *SIAM Journal on Control and Optimization*, **2014**, 52, 1010-1033	1.9	11
67	New regularity results and improved error estimates for optimal control problems with state constraints. *ESAIM - Control, Optimisation and Calculus of Variations*, **2014**, 20, 803-822	1	27
66	Parabolic Control Problems in Measure Spaces with Sparse Solutions. *SIAM Journal on Control and Optimization*, **2013**, 51, 28-63	1.9	57
65	Spike controls for elliptic and parabolic PDEs. *Systems and Control Letters*, **2013**, 62, 311-318	2.4	25
64	Sparse Optimal Control of the Schl□gl and FitzHugh□Nagumo Systems. *Computational Methods in Applied Mathematics*, **2013**, 13, 415-442	1.2	44
63	Second Order Conditions for L2 Local Optimality in PDE Control. *International Federation for Information Processing*, **2013**, 1-12		
62	Numerical approximation of elliptic control problems with finitely many pointwise constraints. *Computational Optimization and Applications*, **2012**, 51, 1319-1343	1.4	7
61	Second Order Analysis for Bang-Bang Control Problems of PDEs. *SIAM Journal on Control and Optimization*, **2012**, 50, 2355-2372	1.9	45
60	Approximation of Elliptic Control Problems in Measure Spaces with Sparse Solutions. *SIAM Journal on Control and Optimization*, **2012**, 50, 1735-1752	1.9	68
59	Second Order Analysis for Optimal Control Problems: Improving Results Expected From Abstract Theory. *SIAM Journal on Optimization*, **2012**, 22, 261-279	2	42
58	A Discontinuous Galerkin Time-Stepping Scheme for the Velocity Tracking Problem. *SIAM Journal on Numerical Analysis*, **2012**, 50, 2281-2306	2.4	17
57	Error estimates for the numerical approximation of Neumann control problems governed by a class of quasilinear elliptic equations. *Computational Optimization and Applications*, **2012**, 52, 719-756	1.4	10
56	A general theorem on error estimates with application to a quasilinear elliptic optimal control problem. *Computational Optimization and Applications*, **2012**, 53, 173-206	1.4	23

55	Optimality Conditions and Error Analysis of Semilinear Elliptic Control Problems with L^1 Cost Functional. *SIAM Journal on Optimization*, **2012**, 22, 795-820	2	63
54	Approximation of sparse controls in semilinear equations by piecewise linear functions. *Numerische Mathematik*, **2012**, 122, 645-669	2.2	31
53	Approximation of Sparse Controls in Semilinear Elliptic Equations. *Lecture Notes in Computer Science*, **2012**, 16-27	0.9	1
52	A Paradox in the Approximation of Dirichlet Control Problems in Curved Domains.. *SIAM Journal on Control and Optimization*, **2011**, 49, 1998-2007	1.9	7
51	Error estimates for the numerical approximation of a quaslinear Neumann problem under minimal regularity of the data. *Numerische Mathematik*, **2011**, 117, 115-145	2.2	8
50	Numerical analysis of some optimal control problems governed by a class of quasilinear elliptic equations. *ESAIM - Control, Optimisation and Calculus of Variations*, **2011**, 17, 771-800	1	11
49	Recent advances in the analysis of pointwise state-constrained elliptic optimal control problems. *ESAIM - Control, Optimisation and Calculus of Variations*, **2010**, 16, 581-600	1	16
48	Approximation of Boundary Control Problems on Curved Domains. *SIAM Journal on Control and Optimization*, **2010**, 48, 3746-3780	1.9	11
47	Penalization of Dirichlet optimal control problems. *ESAIM - Control, Optimisation and Calculus of Variations*, **2009**, 15, 782-809	1	30
46	First- and Second-Order Optimality Conditions for a Class of Optimal Control Problems with Quasilinear Elliptic Equations. *SIAM Journal on Control and Optimization*, **2009**, 48, 688-718	1.9	41
45	Recent Advances in the Analysis of State-constrained Elliptic Optimal Control Problems. *International Series of Numerical Mathematics*, **2009**, 57-72	0.4	
44	Sufficient Second-Order Optimality Conditions for Semilinear Control Problems with Pointwise State Constraints. *SIAM Journal on Optimization*, **2008**, 19, 616-643	2	75
43	Necessary and sufficient optimality conditions for elliptic control problems with finitely many pointwise state constraints. *ESAIM - Control, Optimisation and Calculus of Variations*, **2008**, 14, 575-589	1	7
42	Error estimates for the numerical approximation of Neumann control problems. *Computational Optimization and Applications*, **2008**, 39, 265-295	1.4	34
41	Using piecewise linear functions in the numerical approximation of semilinear elliptic control problems. *Advances in Computational Mathematics*, **2007**, 26, 137-153	1.6	39
40	Error Estimates for the Numerical Approximation of a Distributed Control Problem for the Steady-State Navier□Stokes Equations. *SIAM Journal on Control and Optimization*, **2007**, 46, 952-982	1.9	41
39	The Stability in W s,p (Ω)□Spaces of L 2-Projections on Some Convex Sets. *Numerical Functional Analysis and Optimization*, **2006**, 27, 117-137	1	10
38	Error Estimates for the Numerical Approximation of Dirichlet Boundary Control for Semilinear Elliptic Equations. *SIAM Journal on Control and Optimization*, **2006**, 45, 1586-1611	1.9	92

37	Error Estimates for the Numerical Approximation of Boundary Semilinear Elliptic Control Problems. *Computational Optimization and Applications*, **2005**, 31, 193-219	1.4	81
36	Error Estimates for the Numerical Approximation of Boundary Semilinear Elliptic Control Problems. Continuous Piecewise Linear Approximations **2005**, 91-101		1
35	Error Estimates for Linear-Quadratic Elliptic Control Problems. *IFIP Advances in Information and Communication Technology*, **2003**, 89-100	0.5	28
34	Error Estimates for the Numerical Approximation of a Semilinear Elliptic Control Problem. *Computational Optimization and Applications*, **2002**, 23, 201-229	1.4	164
33	Error Estimates for the Numerical Approximation of Semilinear Elliptic Control Problems with Finitely Many State Constraints. *ESAIM - Control, Optimisation and Calculus of Variations*, **2002**, 8, 345-374	1	46
32	Second-Order Necessary and Sufficient Optimality Conditions for Optimization Problems and Applications to Control Theory. *SIAM Journal on Optimization*, **2002**, 13, 406-431	2	54
31	Second Order Optimality Conditions for Semilinear Elliptic Control Problems with Finitely Many State Constraints. *SIAM Journal on Control and Optimization*, **2002**, 40, 1431-1454	1.9	60
30	Pontryagin's principle for the control of parabolic equations with gradient state constraints. *Nonlinear Analysis: Theory, Methods & Applications*, **2001**, 46, 933-956	1.3	15
29	Second Order Sufficient Optimality Conditions for Some State-constrained Control Problems of Semilinear Elliptic Equations. *SIAM Journal on Control and Optimization*, **2000**, 38, 1369-1391	1.9	51
28	Pontryagin's Principle For Local Solutions of Control Problems with Mixed Control-State Constraints. *SIAM Journal on Control and Optimization*, **2000**, 39, 1182-1203	1.9	42
27	Second-Order Necessary Optimality Conditions for Some State-Constrained Control Problems of Semilinear Elliptic Equations. *Applied Mathematics and Optimization*, **1999**, 39, 211-227	1.5	37
26	Regularization by Functions of Bounded Variation and Applications to Image Enhancement. *Applied Mathematics and Optimization*, **1999**, 40, 229-257	1.5	45
25	Second Order Optimality Conditions for Some Control Problems of Semilinear Elliptic Equations with Integral State Constraints **1999**, 89-97		
24	4. An Optimal Control Problem Governed by the Evolution Navier-Stokes Equations **1998**, 79-95		10
23	Pontryagin's Principle for State-Constrained Boundary Control Problems of Semilinear Parabolic Equations. *SIAM Journal on Control and Optimization*, **1997**, 35, 1297-1327	1.9	172
22	Strong Pontryagin's principle for state-constrained control problems governed by parabolic equations **1996**, 193-200		1
21	Dealing with Integral State Constraints in Boundary Control Problems of Quasilinear Elliptic Equations. *SIAM Journal on Control and Optimization*, **1995**, 33, 568-589	1.9	9
20	An Extension of Pontryagin's Principle for State-Constrained Optimal Control of Semilinear Elliptic Equations and Variational Inequalities. *SIAM Journal on Control and Optimization*, **1995**, 33, 274-298	1.9	50

19	Optimal control of quasilinear parabolic equations*. *Proceedings of the Royal Society of Edinburgh Section A: Mathematics*, **1995**, 125, 545-565	1	13
18	Optimality Conditions for Some Control Problems of Turbulent Flows. *The IMA Volumes in Mathematics and Its Applications*, **1995**, 127-147	0.5	4
17	Pontryagin Principle for Optimal Control Problems Governed by Semilinear Elliptic Equations **1994**, 97-114		3
16	Boundary Control of Semilinear Elliptic Equations with Pointwise State Constraints. *SIAM Journal on Control and Optimization*, **1993**, 31, 993-1006	1.9	144
15	Some optimal control problems of multistate equations appearing in fluid mechanics. *ESAIM: Mathematical Modelling and Numerical Analysis*, **1993**, 27, 223-247	1.8	32
14	Distributed Control of Systems Governed by a General Class of Quasilinear Elliptic Equations. *Journal of Differential Equations*, **1993**, 104, 20-47	2.1	46
13	Optimal control of semilinear elliptic equations with pointwise constraints on the gradient of the state. *Applied Mathematics and Optimization*, **1993**, 27, 35-56	1.5	25
12	Choosing Lq controls to deal with pointwise state constraints **1992**, 490-499		
11	Optimal control in coefficients of elliptic equations with state constraints. *Applied Mathematics and Optimization*, **1992**, 26, 21-37	1.5	32
10	A boundary Pontryagin principle for the optimal control of state-constrained elliptic systems **1992** , 241-249		3
9	State-constrained control problems of quasilinear elliptic equations **1991**, 11-25		4
8	Un principe de Pontryagine pour le contrôle des systèmes semilinéaires elliptiques. *Journal of Differential Equations*, **1991**, 90, 288-303	2.1	25
7	A Green's formula for quasilinear elliptic operators. *Journal of Mathematical Analysis and Applications*, **1989**, 142, 62-73	1.1	49
6	Optimal Control of Semilinear Multistate Systems with State Constraints. *SIAM Journal on Control and Optimization*, **1989**, 27, 446-455	1.9	38
5	Optimal control of quasilinear elliptic equations **1989**, 92-99		2
4	Analytic singular perturbations of elliptic systems. *Journal of Mathematical Analysis and Applications*, **1987**, 122, 422-426	1.1	
3	Control of an Elliptic Problem with Pointwise State Constraints. *SIAM Journal on Control and Optimization*, **1986**, 24, 1309-1318	1.9	182
2	L 2 estimates for the finite element method for the Dirichlet problem with singular data. *Numerische Mathematik*, **1985**, 47, 627-632	2.2	60

1 Numerical approximation of control problems of non-monotone and non-coercive semilinear elliptic equations. *Numerische Mathematik*,1 2.2